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ion wages and hours in the building trades

UNITED STATES DEPARTMENT OF LABOR

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MONTHLY LABOR REVIEW

UNITED STATES DEPARTMENT OF LABOR • BUREAU OF LABOR STATISTICS

LAWRENCE R. KLEIN, Editor

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This Issue in Brief

Nature and extent of frictional unemployment

Even under the best of employment conditions there will always be some unemployment arising from delays involved in changing jobs and filling job openings rather than from a lack of employment opportunity. Experience during past periods, when employment opportunities were good and labor shortages presented no serious problems, indicates that this "frictional" unemployment does not exceed 3 to 4 percent of the labor force, or an annual average of approximately 2 to 2½ million. Page 1.

Trends in housing during the war and postwar periods

Current housing shortages are partially explained by wartime trends in residential construction. At the beginning of the European war, demand for emergency housing in defense areas throughout the country resulted in increased home building, which reached predepression levels and attained a wartime peak of 715,000 new units started in 1941. The next year, however, a decline set in as building materials were diverted to meet the needs of total war, and in 1944 privately financed dwellings in nonfarm areas dropped to 139,000, the lowest point since the depression. With the end of the war, in August 1945, building restrictions were lifted, resulting in an unprecedented increase in home building. From August to December 1945, private builders were issued permits for 118,000 new 1-family dwellings, compared with 115,000 new units of this type during the whole of 1944. The advance continued during the first half of 1946, when permits were issued for 319,000 new 1-family units, as against only 202,000 during the entire year of 1945. Page 11.

Inflation problems at home and abroad

Rising prices throughout the world have threatened wage earners' purchasing power and levels of living. Some countries, mainly the more highly industralized such as the United States, England, Canada, New Zealand, Sweden, and Switzerland, have kept prices from rising more than 30 to 60 percent above prewar levels. In others, including less industrialized areas such as China and Latin America which were highly dependent upon imports of manufactured goods, and even certain industrial countries such as Belgium, prices have risen to many times the prewar level. The economic forces that account for these differences, the efforts of governments to control the price system, and measures of price changes are discussed in the article on page 28.

Wage structure of the cigar manufacturing industry, January 1946

Cigar factory workers in the United States had straight-time average hourly earnings of 73 cents in January 1946. Three-fourths of all the workers were women who averaged 69 cents. Men, a larger proportion of whom were employed in higher skilled jobs, averaged 85 cents. For men, the highest average hourly earnings were $1.24 for certain types of machine adjusters, and for women, 91 cents for cigar makers, whole work, hand. The Middle Atlantic and Southeast

regions in which three-fourths of the industry's employment is located had overall averages of 73 and 75 cents, respectively. The leading cities in these regions insofar as cigar-manufacturing employment is concerned, Philadelphia and Tampa, showed averages of 72 and 86 cents, respectively. Page 45.

Labor requirements in softwood plywood production

Production of 1,000 square feet of Douglas fir plywood, the principal type of softwood plywood, required an average of about 12.4 man-hours of labor at the mill in the first half of 1946. Requirements in individual sample plants were from 9.7 to 15.1 hours per 1,000 feet, the rather wide range reflecting chiefly age of plant and diversity of product. There was an apparent decrease of about 25 percent from the labor requirements as determined in a similar, but not entirely comparable, survey in 1935. This decrease resulted from the introduction of several new types of machines which more than offset the effects of a deterioration in log quality and a rise in product standards. Page 67.

Union wages and hours in the building trades, July 1, 1946

Union building-trades journeymen in 75 cities averaged $1.79 an hour, helpers $1.14, on July 1, 1946. These averages resulted from advances of about 11 percent for journeymen and 16 percent for helpers during the year covered by the study. Over 95 percent of the workers included in the survey received wage increases during this period. The study also revealed that there was 1 apprentice for every 9 journeymen in 1946, compared with 1 for every 34 in 1945. Page 53.

Current statistics of labor interest in selected periods [1]

[Available in reprint form]

Item	Unit or base period	1946			1945	1939: Average for year
		November	October	September	November	
Employment and unemployment						
Civilian labor force (BC): Total	Thousands	58,970	58,990	59,120	53,190	[2] 54,230
Male	do	41,950	41,820	41,850	35,030	[2] 40,950
Female	do	17,020	17,170	17,270	18,160	[2] 13,280
Employed [3]	do	57,040	57,030	57,050	51,450	[2] 46,930
Male	do	40,430	40,270	40,270	33,820	[2] 35,600
Female	do	16,610	16,760	16,780	17,630	[2] 11,330
Nonagricultural	do	49,140	48,410	48,300	43,070	[2] 37,430
Agricultural	do	7,900	8,620	8,750	8,380	[2] 9,500
Unemployed	do	1,930	1,960	2,070	1,740	[2] 7,300
Male	do	1,520	1,550	1,580	1,210	[2] 5,350
Female	do	410	410	490	530	[2] 1,950
Civilian employment in nonagricultural establishments: Total [3]	do	40,453	40,175	40,134	36,779	30,353
Manufacturing	do	14,970	14,761	14,735	13,110	10,078
Mining	do	828	827	827	793	845
Construction [4]	do	1,864	2,040	2,103	1,014	1,753
Transportation and public utilities	do	4,007	3,987	3,949	3,871	2,912
Trade	do	8,268	8,039	7,918	7,571	6,618
Finance, service, and miscellaneous	do	5,244	5,208	5,155	4,845	4,160
Federal, State, and local government, excluding Federal force-account construction	do	5,272	5,313	5,447	5,575	3,988
Military personnel	do	2,441	2,477	2,476	10,091	367
Production-worker employment:						
Manufacturing	do	12,218	12,024	12,018	10,503	8,192
Bituminous-coal mining	do	334	334	335	327	371
Class I steam railroads, including salaried employees (ICC)	do	1,382	1,376	1,363	1,406	988
Hired farm workers (BAE)	do	2,503	2,624	2,777	2,569	[5] 2,825
Hours and earnings						
Average weekly hours:						
Manufacturing	Hours	40.2	40.4	40.3	41.2	37.7
Bituminous-coal mining	do	.....	42.9	41.8	[6] 32.2	27.1
Retail trade	do	.....	40.0	40.9	[6] 40.0	43.0
Building construction (private)	do	37.2	38.8	38.7	37.2	32.6
Average weekly earnings:						
Manufacturing		$45.74	$45.68	$45.41	$40.77	$23.86
Bituminous-coal mining		.....	$62.54	$61.65	[6] $39.09	$23.88
Retail trade		.....	$33.19	$33.76	[6] $28.88	$21.17
Building construction (private)		$57.65	$59.20	$58.49	$51.93	$30.39
Average hourly earnings						
Manufacturing		$1,139	$1.130	$1.127	$0.990	$0.633
Bituminous-coal mining		.....	$1.459	$1.480	[6] $1.242	$0.886
Retail trade		.....	$0.908	$0.906	[6] $0.800	$0.536
Building construction (private)		$1,549	$1.526	$1.510	$1.397	$0.933
Average striaght-time hourly earnings in manufacturing, using—						
Current employment by industry		.....	$1.093	$1.091	[6] $0.944	$0.622
Employment by industry as of January 1941		.....	$1.095	$1.093	[6] $0.941	$0.640
Quarterly farm wage rate, per day without board (BAE)		.....	$4.94	.....	[6] $4.39	[6] $1.57
Industrial injuries and labor turn-over						
Industrial injuries in manufacturing per million man-hours worked		.....	.....	17.0	[7] 18.3	15.4
Labor turn-over per 100 employees in manufacturing:						
Total separations		4.9	6.3	6.9	7.1	[5] 3.0
Quits		3.7	4.7	5.3	4.7	[5] 0.8
Lay-offs		0.7	1.0	1.0	1.7	[5] 2.0
Total accessions		5.7	6.8	7.1	8.7	[5] 4.1
Labor-management disputes						
Work stoppages beginning in month:						
Number		310	450	450	358	218
Number of workers involved	Thousands	450	290	380	420	98
All work stoppages during month:						
Number of man-days idle	do	4,750	4,500	5,000	6,935	1,484
Man-days idle as percent of available working time		0.7	0.6	0.8	1.2	0.28

See footnotes at end of table.

Current statistics of labor interest in selected periods [1]—Continued

Item	Unit or base period	1946			1945	1939: Average for year
		November	October	September	November	
Prices						
Consumers' price index (moderate income families in large cities): All items	1935–39=100	151.7	148.4	145.9	129.3	99.4
Food	1935–39=100	187.7	180.0	174.1	140.1	95.2
Clothing	1935–39=100	168.7	167.0	165.9	148.7	100.5
Rent	1935–39=100			108.8	[7] 108.3	104.3
Fuel, electricity, and ice	1935–39=100	114.7	114.4	114.4	110.1	99.0
Housefurnishings	1935–39=100	169.1	167.6	165.6	147.6	101.3
Miscellaneous	1935–39=100	132.0	130.8	129.9	124.6	100.7
Retail food price index (large cities): All foods	1935–39=100	187.7	180.0	174.1	140.0	95.2
Cereals and bakery products	1935–39=100	140.6	138.5	137.3	109.1	94.5
Meats	1935–39=100	203.6	190.7	188.5	131.0	96.6
Dairy products	1935–39=100	198.5	202.4	186.6	135.9	95.9
Eggs	1935–39=100	201.6	214.6	193.3	192.1	91.0
Fruits and vegetables	1935–39=100	184.5	176.5	176.4	172.3	94.5
Beverages	1935–39=100	167.8	166.5	162.0	124.9	95.5
Fats and oils	1935–39=100	244.3	147.9	151.4	124.4	87.7
Sugar and sweets	1935–39=100	170.5	167.5	141.5	126.5	100.6
Wholesale price index: All commodities	1926=100	[8] 139.6	[8] 134.1	124.0	106.8	77.1
All commodities other than farm products	1926=100	[8] 132.8	[8] 127.1	117.2	101.3	79.5
All commodities other than farm products and foods	1926=100	[8] 120.6	[8] 115.7	112.2	100.2	81.3
Farm products	1926=100	169.8	165.3	154.3	131.1	65.3
Foods	1926=100	165.4	157.9	131.9	107.9	70.4
National income and expenditures						
National income payments (BFDC)	Millions	$14,248	$14,673	$14,317	$13,075	[5] $5,949
Consumer expenditures for goods and services (BFDC)	do			[9] $32,100	[9] $26,260	[9] $15,350
Retail sales (BFDC)	do	$9,087	$8,911	$8,199	$7,181	[5] $3,670
Production						
Industrial production index, unadjusted (FR): Total	1935–39=100	182	184	184	167	100
Manufactures	1935–39=100	191	191	191	173	109
Minerals	1935–39=100	135	146	149	134	106
Bituminous coal (BM)	Thousands of short tons	37,390	56,000	51,080	50,772	32,905
Car loadings index, unadjusted (FR)	1935–39=100	141	149	149	136	101
Electric energy (FPC): Total	Millions of kw.-hr	23,954	24,430	22,788	21,208	([10])
Utilities (production for public use)	do	19,954	20,222	18,805	17,360	[5] 11,433
Industrial establishments	do	4,000	4,208	3,983	3,848	([10])
Construction						
Construction expenditures	Millions	$1,151	$1,235	$1,238	$555	[5] $597
Value of urban building construction started	do	$268	$335	$341	$262	([10])
New nonfarm family dwelling units		46,600	60,200	65,800	31,900	[5] 45,100

[1] Source: Bureau of Labor Statistics unless otherwise indicated. Abbreviations used: BC (Bureau of the Census); ICC (Interstate Commerce Commission); BAE (Bureau of Agricultural Economics); BFDC (Bureau of Foreign and Domestic Commerce); FR (Federal Reserve); BM (Bureau of Mines); FPC (Federal Power Commission). Most of the current figures are preliminary.

[2] 10-month average—March to December 1940—not comparable with later figures. Revisions are in process.

[3] Excludes employees on public emergency work, these being included in unemployed civilian labor force. Civilian employment in nonagricultural establishments differs from nonagricultural employment in civilian labor force mainly because of the inclusion in the latter of such groups as self-employed and domestic and casual workers.

[4] Includes workers employed by construction contractors and Federal force-account workers (nonmaintenance construction workers employed directly by the Federal Government). Other force-account and nonmaintenance construction employment is included under manufacturing and other groups.

[5] November.

[6] October.

[7] September.

[8] Includes current motor vehicle prices. See footnote 1 to table 1, page 115 of this issue.

[9] Third quarter.

[10] Not available.

MONTHLY LABOR REVIEW

JANUARY 1947

Nature and Extent of Frictional Unemployment [1]

THE Employment Act of 1946 declares that it is the policy of the Federal Government to foster "conditions under which there will be afforded useful employment opportunities, including self-employment, for those able, willing, and seeking to work." Under the best of conditions, however, there will always be some unemployment arising from delays involved in changing jobs and filling job openings rather than from a lack of employment opportunity. Theoretically this type of unemployment—known as "frictional" unemployment—could be eliminated if workers were so trained and controlled as to be shifted immediately to the occupations, industries, and areas where they were needed at any given time and if workers and employers were deprived of the option of terminating their relationship. But this is contrary to our concept of a free labor market in which an employer can hire and fire, an employee can quit, and a worker can choose his own occupation, industry, and geographic locality of work.

Frictional unemployment is also a byproduct of economic efficiency and progress. The growth of new industries and industrial areas, the introduction of technological developments, the marketing of new products and the outmoding of old—all these changes cause shifts in the occupational, industrial, and geographical nature of the demand for labor. Such shifts in demand coupled with a degree of immobility on the part of the labor supply inevitably cause some loss of employment.

It is impossible to determine just how low the volume of frictional unemployment might be brought under favorable conditions. However, experience during past periods, when employment opportunities were good and labor shortages presented no serious problems, indicates that frictional unemployment does not exceed 3 to 4 percent of the labor force, or an annual average of approximately 2 to 2½ million.

[1] Prepared by Lester M. Pearlman and Leonard Eskin of the Bureau's Occupational Outlook Division and Edgar E. Poulton of the Labor Economics Staff. Reprints of this article will be available upon request to the Bureau.

Nature of Frictional Unemployment

For purposes of this discussion unemployment associated with permanent shifts in demand and imperfect mobility of labor is distinguished from that caused by simple labor turn-over and by seasonal fluctuations in labor demand and supply. It is recognized, however, that these distinctions are purely conceptual and that it may be quite impossible to classify an individual jobless worker according to the particular cause of his unemployment.[2]

Any description of frictional unemployment must presuppose general definitions of employment and unemployment. The definitions of these terms used by the United States Bureau of the Census are adhered to in the present article.[3]

IMPERFECT MOBILITY OF LABOR

If all workers could adjust immediately to changed opportunities, either by moving or by learning new skills, the volume of frictional unemployment would be greatly reduced. The imperfect mobility of labor does not reflect inability to adapt to changed conditions so much as the influence of home and family ties and natural reluctance to leave familiar surroundings and types of work.

Modern industrial operations are so mechanized and standardized that a relatively small proportion of workers need to have a highly developed skill. There is, therefore, little occasion for persistent labor immobility attributable directly to the decline of certain industries or occupations. The movement of workers between occupations and industries would be facilitated, of course, by positive measures for training, retraining, and vocational guidance.

Pressures against leaving familiar surroundings, friends, and family are probably even stronger than those against changing to a new type of work. The uncertainty and fear attending migration are reenforced by its cost. This is particularly significant, for it is precisely those who should move that usually lack the means to do so. Added

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[2] Cf. Sir William Beveridge, Unemployment—A Problem of Industry (Toronto, Longmans, Green and Co., 1930, p. 3): "Any one unemployed individual may represent, and commonly does represent, the concurrence of many different forces, some industrial, some personal. A riverside laborer might be suffering at one and the same time from chronic irregularity of employment, from seasonal depression of his trade, from exceptional or cyclical depression of trade generally, from permanent shifting of work lower down the river, and from his own deficiencies of character or education . . . . Classification of men according to the causes of their unemployment is, strictly speaking, an impossibility. The only possible course is to classify the causes or types of unemployment themselves."

[3] Census definitions are as follows:

Employed.—Persons aged 14 years and over who during a specified week (1) work full or part time for pay or profit; or (2) work without pay in a family enterprise (farm or business) at least 15 hours; or (3) have a job but do not work because of illness, vacation, labor-management dispute, bad weather, or lay-off with definite instructions to return to work within 30 days.

Unemployed.—Persons aged 14 years and over not working but seeking a job during a specified week. Includes also those who would have been seeking a job except for the fact that they were temporarily ill, expected to return to a job from which they had been laid off indefinitely, or believed no work to be available in their community.

to these factors is the general ignorance as to where opportunities lie. The national labor market is made up of many separate local markets, which are isolated from each other to a degree which varies with the distance between them. Even during World War II, severe labor shortages existed in some areas while surpluses of workers prevailed in others. This was recognized by the War Manpower Commission's fourfold classification of labor-market areas. For example, those in group I (the most stringent) were "areas of current acute labor shortage," while those in group IV (the least stringent) were "areas in which a substantial labor surplus will remain after 6 months."

Whatever measures are adopted to encourage geographic mobility, some unemployed workers remain rooted in their home communities. Some of this immobility provides a healthy measure of social stability. The International Labor Office recommends in its report to the Philadelphia Conference (1944) that government policy be "designed to prevent excessive and unnecessary movements of workers from one area to another." [4] The report also suggests, however, that it would be worthwhile to encourage migration from areas of labor surplus and poor prospects to areas where additional labor is needed and future prospects are good.

The degree of labor mobility is influenced by the composition and the affiliations of the labor force. Young persons have fewer ties to particular localities than do older persons. Women are less able—depending partly upon the strength and character of our social customs—to venture forth into new areas. And, along with certain minority groups, their occupational range is limited by convention. Entry to and continuance at particular jobs is often conditioned by union affiliation, seniority provisions, and other considerations that invest those jobs with an unusual value.

The growing average age of the labor force, the increasing proportions of women and of handicapped persons in it, and the increasing extent of vested interests in particular jobs are operative in the direction of less mobility. At the same time, however, certain barriers to the occupational mobility of women and minority groups are breaking down. And wartime experience indicates that, under full employment, workers have less urgent attachment to their jobs and mobility is greatly increased.

LABOR TURN-OVER

Unemployment involved in labor turn-over results from the normal exercise by the employer and employee of their mutual right to terminate their relationship. Such unemployment arises from the physical delay in shifting from one job to another inherent in a labor

[4] International Labor Office, The Organization of Employment in the Transition from War to Peace, Montreal, 1944 (p. 152).

market in which job seekers and employers do not have perfect knowledge of available job openings or labor supply.

The effect of turn-over on the volume of unemployment may be illustrated by the following example. If every employed worker changed his job once a year and took 1 week in the process, annual unemployment from that source would average about 2 percent of the labor force, or approximately 1,200,000 persons.

It is assumed in regard to unemployment associated with labor turn-over that the period between jobs is only as long as physical necessities make it. This period, of course, varies with the character of the change. If it is initiated by the worker, it is probable that in most cases he has other employment in view. This is, however, not always true. In a condition of high employment opportunity, workers would be less hesitant about quitting jobs if they thought they could readily obtain others, even though they had no specific job in mind. In such cases, as well as in lay-offs, an employment service widely used by both employers and workers helps to reduce the period of unemployment.

SEASONAL UNEMPLOYMENT

The physical conditions and social customs which concentrate demand for labor in certain seasons of the year and make for slack periods in other seasons are well known. The wheat harvest does not come in December nor Christmas in June. It is true, however, that there have been notable advances in spreading production over the year and in dovetailing the operations of seasonal industries and further progress is possible. For example, extension of the guaranteed annual wage would further stimulate the stabilization of employment in industries affected by seasonal changes. Also, under conditions of ample employment opportunity, seasonal industries would be under heavier pressure to regularize their production in order to recruit workers. Nevertheless, neither the physical basis of seasonal employment nor the social customs that concentrate economic demands in particular parts of the year can be ignored, and seasonal unemployment must be recognized as a component of frictional unemployment.

The relation of seasonal unemployment to the general level of economic activity is not necessarily direct. In those industries which show wide fluctuations in employment between active and slack periods—particularly the construction industry—the seasonal component of total unemployment may well be larger in prosperous years than in slump periods.

In addition to the seasonal unemployment arising from fluctuations in labor demand, there is a marked seasonality in the unemployment associated with the entry of new workers into the labor market.

Most workers seek their first jobs when school terms end—particularly in late spring and early summer—and there is inevitably some delay in getting placed. The search for summer work on the part of students at the start of the school vacation also causes some temporary unemployment.

Nonfrictional Types of Unemployment

Briefly, frictional unemployment is that type of unemployment which is not significantly reduced by a general increase in the demand for labor. Other types of unemployment—although they are not necessarily associated with a severe slump in labor demand—are not consistent with conditions of satisfactory employment opportunity. Chief among these types are a "hard core" of physically or socially handicapped persons out of work and a "reserve" designed to assure flexibility.

"HARD-CORE" UNEMPLOYMENT

Under conditions of low employment opportunity such as existed in the past, there is a group of persons who rarely find employment or who remain employed only for short periods. Some have never acquired a skill and are able to perform only the most casual work. A considerable number have physical or temperamental handicaps which prejudice their holding jobs. Others are the victims of discrimination that has no relation to economic capacities. But relative inefficiency on the part of the worker or prejudice on the part of the employer are not basic causes of unemployment; rather they are determinants of which individuals and groups will suffer most from unemployment. During periods of high labor demand, this so-called "hard core" virtually disappears.

Figures available for the war period, for example, show that very few persons stayed unemployed for any considerable length of time. In April 1945, about three-fifths of the 950,000 persons actively seeking work had been looking for jobs less than 1 month and nine-tenths had been seeking employment for less than 4 months.

Many workers whose services were shunned in prewar days demonstrated a capacity that favors their continued employment. War production prompted a reestimate of the worth of the physically impaired, whose disabilities frequently are assets, especially to the degree that they reduce costly labor turn-over. The training courses set up during the war demonstrated that many handicapped persons have a contribution to make, if only a little more than the usual patience and skill are used in their rehabilitation. This group deserves special attention in view of the increase in its size as a result of the war.

The progress made during the war in breaking down employment prejudice with regard to age, sex, and race, as well as physical disability, may well carry over into the postwar period. In those plants that accepted older workers, women, and Negroes on the basis of their ability, employers may not soon dispense with their services.

A "RESERVE" OF UNEMPLOYED PERSONS

An unemployment "reserve" designed to provide flexibility or meet emergency demands for labor is not necessary because an ample reserve of labor is provided by persons outside the labor force and by the possibility of lengthening hours of work. Only those persons actively seeking work at a specified time are counted as unemployed, and among those not seeking work there are many who will enter the labor force in response to increased demand for workers.

The ready expansibility of the labor force was demonstrated during the war when 8 million extra workers were recruited from among housewives, students, retired persons, and others who would not have sought work if prewar trends had continued. To some extent this was a direct result of the war (e. g., drafting of youths who might have stayed in school, and need for jobs on the part of servicemen's dependents), but in great part it was simply a response to the availability of jobs at good pay. More than two-fifths of the wartime extra workers were men and women over the age of 35 years—a group that could not have been affected to a very great extent by direct war pressures.

Another illustration of the reserve provided by persons outside the labor market is the sensitivity of the labor force to seasonal fluctuations in labor demand. In 1944—when unemployment averaged only 840,000—agricultural employment had a net seasonal upswing of 3,000,000 between January and July and about 600,000 workers were recruited by trade establishments during the Christmas season.

Thus, persons normally outside the labor force provide a versatile and conveniently scattered reservoir able to meet such contingencies as may arise.

Estimates of Frictional Unemployment

The complex classification of the components of unemployment makes it difficult to estimate them separately. For this reason, the available estimates of frictional unemployment are of a summary character.

ESTIMATES FROM VARIOUS SOURCES

Dr. Yntema has described the nature and extent of unemployment under conditions of full employment as follows:

> Workers would be free to move from less to more desirable jobs even though that would entail some loss of gainfully occupied time. Similarly, consumers

and producers would have freedom of choice, even though that would lead inevitably to temporary maladjustments in some places and in some industries between the jobs to be had and the men and women seeking work. Moreover, there would be some unemployables whose productivity was too low to qualify for the wages which prevailed for the jobs they sought. At the optimum level of employment, the labor market would not be so tight as to prevent the maintenance of a reasonably stable price level . . . . In normal times frictional unemployment would be higher [than during the war], probably from 2 percent to 5 percent [of the labor force].[5]

The National Planning Association's estimate of a postwar (1950) labor force makes allowances for 1.5 million frictionally unemployed or 2½ percent in a total labor force of 61.5 million.[6]

The London Economist suggested that in Great Britain 500,000 unemployed—including transitional, seasonal, and some structural unemployment—is consistent with "full employment" so long as any pockets of continuing unemployment in particular areas or industries are quickly drained away.[7] This represents an unemployment rate of 2½ percent of the British labor force.

Fortune magazine, analyzing frictional unemployment, stated that in the immediate post-conversion period, "4 million unemployed may be too few," depending on the distribution and the mobility of the labor force. But later, "if things are managed skillfully, 4 million idle men and women may be absurdly too many. Then we should approach the rock-bottom minimum of 1 or 2 million willing employables who are unemployed only because they are changing jobs."[8]

Karl T. Schlotterbeck in a publication of the Brookings Institution wrote:

> We are inclined to believe that even under generally favorable conditions there would perhaps be out of work on the average over a period of years as many as 4 million (7 percent of the total labor force). In the best years—under boom conditions—the level might fall as low as 3 million (5 percent of the total labor force). In other years it might rise as high as 5 million (8½ percent of the total labor force). Only when the number out of work exceeded 4 million need the employment situation occasion real concern. It should be clearly understood that this total does not represent a permanent army of unemployed—seeking jobs in vain.[9]

ESTIMATES BASED ON PAST EXPERIENCE

As indicated above, there is a fairly wide range in the several estimates of the amount of unemployment consistent with "full employment" in the postwar world. The variation results in part from differences in the conception of the components to be included in frictional unemployment, and in part from inability to measure

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[5] Theodore O. Yntema: Full Employment in a Private Enterprise System, *in* American Economic Review, March 1944, Supplement (p. 107).

[6] National Planning Association, National Budgets for Full Employment, Washington, April 1945.

[7] Full Employment: The Aim, *in* The Economist, October 3, 1942 (p. 408).

[8] Transition to Peace, *in* Fortune, January 1944 (p. 190).

[9] Karl T. Schlotterbeck, Postwar Reemployment, The Brookings Institution, 1943 (p. 19).

the size of these components. In the following analysis an attempt is made to eliminate value judgments as to the nature or the size of the components to be included. The discussion is concerned only with the amount of measurable unemployment actually found in past periods characterized by general economic prosperity and the absence of serious labor shortages. It is believed that such periods, in general, reflect the concepts defined in this article and, in addition, provide some statistical evidence for quantitative analysis.

Unemployment estimates for New York City during 1943 and for the United States during the period of the 1920's are examined as indicative of the level of unemployment under conditions of satisfactory employment opportunity.

However, a particular volume of unemployment should not be defined as frictional unless something is known about the nature and causes of unemployment. A constantly changing group of unemployed averaging 2 million workers moving between jobs might be compatible with a condition of satisfactory employment opportunity. But a stagnant pool of 1 million workers unemployed continuously for a long period of time would not.

The New York City Experience

New York City was relatively slow in responding to the defense-war boom because of its concentration of production in consumer-goods industries and comparative lack of war industry. The ratio of unemployment to total labor force in New York City in November 1941 was over 13 percent—approximately double the unemployment rate in other large cities.[10] By November 1942—although the unemployment rate in New York City had been reduced to 5½ percent—unemployment was a sufficiently serious problem to cause Governor Dewey to appoint the Hanes Committee to study its solution. The New York Times, in an editorial commenting on the need for the appointment of this committee, stated: "In the face of a national manpower crisis and a national need for full production, New York City, the greatest industrial city in the Nation, has large unemployment and idle factories and idle machines, while many of its smaller businesses face the threat of extinction." [11] As late as the first quarter of 1943, unemployment was regarded as a grave problem by Governor Dewey and Mayor LaGuardia.[12] In quantitative terms, the number of persons unemployed at the beginning of 1943 constituted somewhat less than 5 percent of the total civilian labor force.

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[10] Unemployment rates from unpublished data of Bureau of the Census, Monthly Report on the Labor Force.

[11] New York Times, November 12, 1942 (p. 24).

[12] Idem, February 20, 1943 (p. 1), January 6, 1943 (p. 29).

The turning point in the unemployment situation occurred around April 1943, largely as the cumulative result of the induction of many men into the armed services, the migration of New Yorkers to war production centers, and the increased placement of war contracts in the metropolitan area. Col. Robert P. Johnson, Chairman of the Smaller War Plants Corporation, noted that the reduction in the number of distressed plants had brought this troublesome problem to a manageable point.[13] In addition, the Hanes Committee noted "a marked improvement in the unemployment trend." [14]

By the middle of the year, Anna Rosenberg, Regional Director, War Manpower Commission, reported the beginning of shortages in many skills and specialized occupations.[15] As 1943 drew to its close, New York City's officials had oriented their manpower planning toward dealing with the developing labor shortages. In November, Stephan S. Sheridan, Acting WMC Director, pointed out that the unemployed were no longer numerous enough to meet quotas for essential manpower. Manpower requirements, he stated, are going to be met through the recruitment of new women workers and by the transfer of men from nonessential to essential industries.[16] At the close of 1943 the unemployment rate had dropped to 2½ percent—half the rate at the beginning of the year. By January 1944 a survey conducted by the New York Times in the metropolitan area indicated an immediate need for both skilled and unskilled workers in war plants.[17]

Over the year, New York City had progressed from a situation in which unemployment was regarded as a serious public problem to one in which signs of a tight labor market were evident. Thus, sometime in 1943, probably in the second quarter, this area passed through a phase in which unemployment ceased to be an important problem and no serious labor shortages had developed; at that time about 3.3 percent of the labor force was looking for work.

The Period of the Twenties

The years of lowest unemployment during the 1920's are generally accepted as typical of conditions affording satisfactory employment opportunity. At the same time, however, the Nation did not suffer from a general labor shortage; some concern existed over the frictional unemployment created by technological advances. According to

[13] New York Times, April 23, 1943 (p. 27).
[14] Idem, April 12, 1943 (p. 16).
[15] Idem, June 4, 1943 (p. 12).
[16] Idem, November 19, 1943 (p. 16).
[17] Idem, January 9, 1944 (p. 7).

Isador Lubin's study of the absorption of the unemployed during the twenties, "dispossessed workers did not easily find new employment."[18]

The lowest rates of unemployment during the decade were in 1920, 1923, 1926, and 1929. The year 1920, however, may be too closely allied to the abnormal wartime period to be considered representative. And 1929—an unstable year ending in financial crisis—may also be a poor year to choose as a guide. The remaining years, 1923 and 1926, are recognized as representative of conditions of high prosperity. Estimated unemployment averaged 3.9 percent of the labor force in 1923 and 3.7 percent in 1926.

Thus, experience during past periods characterized by ample employment opportunity and the absence of serious labor shortages indicates that necessary frictional unemployment should not exceed 3 to 4 percent of the civilian labor force. For a civilian labor force of approximately 60 million—the current total—this rate would mean a range of roughly 2 to 2½ million unemployed. To the extent that past levels contained a "reserve" of unemployed, and to the extent that frictions in the labor market can be reduced through such measures as effective vocational guidance and employment service, the volume of frictional unemployment may be brought below the levels indicated by past experience. There is little reason to believe, however, that it need exceed such levels.

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[18] Isador Lubin, The Absorption of the Unemployed by American Industry, The Brookings Institution, Washington, 1929 (p. 15).

Trends in Housing During the War and Postwar Periods [1]

The War Years

LACK of adequate residential construction for more than a decade lies at the root of current housing shortages. During wartime, housing needs became critical in many parts of the country as millions of workers migrated to areas where war industries were expanding. In addition, residential building was retarded by the diversion of construction materials to meet the needs of total war. It seems appropriate, therefore, to review the wartime pattern in new dwellings started in nonfarm areas throughout the United States during World War II, and to indicate the trend in housing for succeeding months of the postwar period.[2]

The rise in housing construction (table 1) which followed the depression years in the 1930's continued after the outbreak of war in Europe, as a result of the increased demand for emergency housing in defense areas and easier financing through the Federal Housing Administration, together with generally improved economic conditions. The peak of wartime building was reached in 1941, when more than 700,000 new units were started.[3] In September 1941, builders of moderate-priced dwellings in critical areas were assisted in obtaining materials in short supply by the issuance of preference ratings under regulations set up by the Office of Production Management, later the War Production Board.[4]

A reversal in trend was evident, however, during the last half of the year 1941, as the number of new dwelling units declined from a high point of 223,000 for the second quarter.

A further decline in residential building occurred during the two succeeding years, partly as a result of the restrictive legislation enacted in the spring of 1942, and partly because of the scarcity of

[1] Prepared in the Bureau's Division of Construction and Public Employment by Mary Frost Jessup. This article, covering the period from 1944 through the first 6 months of 1946, is part of a forthcoming bulletin on the construction industry. For current data and developments on housing, see p. 118 this issue of the Monthly Labor Review.

[2] This report is based on estimates of the number of new residential units started, their valuations, and source of funds, in nonfarm areas throughout the United States. The tabulations show these data by population groups and by geographic regions. The number of new dwellings in urban and rural nonfarm areas, which are financed by private funds and by public funds, and 1-family, 2-family, and multifamily structures are also shown.

[3] Current estimates of residential construction are derived from building-permit reports made to the Bureau of Labor Statistics and from field investigation into the start and completion rate of building in a sample of both permit- and nonpermit-issuing places. The Bureau began the regular collection of building-permit reports from officials in 196 large cities in 1920. By 1944 collection had been expanded to include more than 2,700 cities and 1,400 nonurban incorporated places. During the last 2 years, the coverage has been greatly extended to include between 4,000 and 5,000 places.

[4] Applications from private builders were approved only if the sales price was $6,000 or less and the monthly rental $50 or less.

labor and of building materials reserved for wartime construction of posts, camps, and war plants. In April 1942, Conservation Order L–41, issued by WPB, prohibited, without special authorization, all nonessential residential construction except that estimated to cost less than $500.

TABLE 1.—*New dwelling units started in nonfarm areas, 1910–45* [1]

Year	Total nonfarm dwelling units	New dwelling units by—				
		Area [2]		Type of structure		
		Urban	Rural nonfarm	1-family	2-family [3]	Multi-family [4]
1910	475,000					
1911	480,000					
1912	490,000					
1913	455,000					
1914	445,000					
1915	475,000					
1916	480,000					
1917	230,000					
1918	120,000					
1919	330,000					
1920	247,000	196,000	51,000	202,000	24,000	21,000
1921	449,000	359,000	90,000	316,000	70,000	63,000
1922	716,000	574,000	142,000	437,000	146,000	133,000
1923	871,000	698,000	173,000	513,000	175,000	183,000
1924	893,000	716,000	177,000	534,000	173,000	186,000
1925	937,000	752,000	185,000	572,000	157,000	208,000
1926	849,000	681,000	168,000	491,000	117,000	241,000
1927	810,000	643,000	167,000	454,000	99,000	257,000
1928	753,000	594,000	159,000	436,000	78,000	239,000
1929	509,000	400,000	109,000	316,000	51,000	142,000
1930	330,000	236,000	94,000	227,000	29,000	74,000
1931	254,000	174,000	80,000	187,000	22,000	45,000
1932	134,000	64,000	70,000	118,000	7,000	9,000
1933	93,000	45,000	48,000	76,000	5,000	12,000
1934	126,000	49,000	77,000	109,000	5,000	12,000
1935	221,000	117,000	104,000	183,000	8,000	30,000
1936	319,000	211,000	108,000	244,000	14,000	61,000
1937	336,000	218,000	118,000	267,000	16,000	53,000
1938	406,000	262,000	144,000	317,000	18,000	71,000
1939	515,000	359,000	156,000	399,000	29,000	87,000
1940	603,000	397,000	206,000	486,000	37,000	80,000
1941	715,000	440,000	275,000	613,000	34,000	68,000
1942	497,000	281,000	216,000	391,000	20,000	86,000
1943	350,000	209,000	141,000	286,000	18,000	46,000
1944	169,000	115,000	54,000	145,000	11,000	13,000
1945 [5]	247,000	163,000	84,000	220,000	10,000	17,000

[1] Data for 1920–29 are from National Bureau of Economic Research; data for 1910–19 and 1930–45, from Bureau of Labor Statistics. No break-downs are available for 1910–19.

[2] Urban and rural nonfarm classifications for years 1920–29 are based on 1930 census; for years 1930–43, on 1940 census.

[3] Includes 1- and 2-family dwellings with stores.

[4] Includes multifamily dwellings with stores.

[5] Estimates from 1910 through 1944 represent number of units started. In 1945, figures represent units scheduled to be started and are based upon building permits issued and Federal construction contracts awarded. The 1945 figures are not adjusted for lapsed building permits and time lag between issuance of permits and start of construction as in table 3. Such adjustments were not necessary in previous years, when lag and lapse in building permits were not significant.

An important result of restrictions on building and of the increasing shortage of wartime housing was the shift from tenant occupancy to home ownership. The 15-percent rise in the proportion of owner-occupied units over the 4½-year period from April 1940 to October

1944 was greater than for any other comparable period for which data are available.[5]

The low point in construction of new dwelling units for the war years was reached in 1944 (table 2), as new public construction declined to a negligible factor, and privately financed dwellings decreased to 139,000 for the year with only 7,000 new units scheduled to start in December. The lowest rate of housing activity, as measured by building permits and Federal contract awards, occurred during the first 2 months of 1945. The situation was alleviated somewhat by the carrying out of the H–2 War Housing Program under the National Housing Agency and expansion of the H–3 Program which started at the end of 1944. The H–2 Program permitted additional construction of dwelling units, in critical areas, up to $8,000 under certain conditions of hardship; the H–3 program applied to individual cases of hardship anywhere, without cost limitations.

TABLE 2.—*Number of new dwelling units started* [1] *in nonfarm areas and percent of change, by source of funds and type of structure, 1939–45*

Year	New dwelling units financed by—											
	All sources		Public funds		Private funds							
					All types of structure		1-family		2-family [2]		Multifamily [3]	
	Number	Percent of change from previous year	Number	Percent of change from previous year	Number	Percent of change from previous year	Number	Percent of change from previous year	Number	Percent of change from previous year	Number	Percent of change from previous year
1945 [1]	246,700	+45.7	17,943	−41.3	228,757	+64.9	202,263	+76.6	9,847	−7.3	16,647	+23.0
1944	169,300	−51.6	30,589	−81.6	138,711	−24.5	114,547	−16.0	10,626	−40.2	13,538	−54.3
1943	350,000	−29.5	166,272	−14.9	183,728	−39.0	136,332	−46.0	17,766	+1.7	29,630	−5.7
1942	496,600	−30.6	195,407	+104.1	301,193	−51.4	252,323	−52.7	17,463	−38.5	31,407	−45.7
1941	715,200	+18.7	95,740	+31.1	619,460	+17.0	533,185	+19.1	28,393	+11.0	57,882	+2.6
1940	602,600	+17.0	73,029	+29.2	529,571	+15.5	447,571	-------	25,577	-------	56,423	-------
1939	515,000	-------	56,542	-------	458,458	-------	(4)	-------	(4)	-------	(4)	-------

[1] In 1945 figures represent units scheduled to be started and are based upon building permits issued and Federal construction contracts awarded. They are not adjusted for lapsed building permits and time lag between issuance of permits and start of construction, as in table 3. Such adjustment was not necessary in previous years, when lag and lapse in building permits were not significant.
[2] Includes 1- and 2-family dwellings with stores.
[3] Includes multifamily dwellings with stores.
[4] Data not available prior to 1940.

The cessation of hostilities in August 1945, and consequent lifting of wartime restrictions in the construction industry the following October, resulted in an unprecedented increase in home building. Contrary to the usual seasonal slump during the fall and winter months, the total number of nonfarm dwelling units [6] increased 40 percent

[5] See Effect of Wartime Housing Shortages on Home Ownership, *in* Monthly Labor Review, April 1946 (pp. 560, 561).
[6] Nonfarm areas in the United States consist of all urban and rural nonfarm places. The urban areas include all incorporated places of 2,500 or more population in 1940 and, in addition, a small number of unincorporated civil divisions. The rural nonfarm construction covers nonagricultural building in unincorporated places and building in incorporated places of less than 2,500 population.

during the fourth quarter of 1945, from 65,500 to 91,500. The greatest monthly increase for 1945 occurred between September and October, when the number of new housing units rose from 21,800 to 30,000, or 38 percent.

Trends in 1946

THE VETERANS' HOUSING PROGRAM

After the removal of wartime restrictions on residential construction in the fall of 1945, it became evident that new measures would be necessary on the part of the Government, not only to provide moderate-cost housing, but also to make it available to returning veterans and their families. The reconversion period on the housing front, therefore, has centered around the needs of veterans. The Civilian Production Administration announced its Reconversion Housing Program in December 1945, to take effect on January 15, 1946. Preference ratings were set up for certain building materials in short supply which were made available to veterans and to builders, giving precedence to veterans in the construction of moderate-priced houses and apartments.

This action was followed by the coordination of all housing functions under an administrator who was charged with the preparation of plans designed to meet the housing shortage, which grew even more critical as veterans returned in increasing numbers. In his report to the President of February 7, 1946, the Housing Expediter pointed out that in October 1945, 1.2 million families were living doubled up with other families.[7] It was estimated that there would be an additional 2.9 million married veterans who would need homes by December 1946, and over half a million nonveterans who would marry during the course of the year, making a total of 3.5 million families who would be looking for houses or apartments by the end of 1946; about 1.1 million new families would need homes in 1947. Existing vacancies, and new vacancies resulting from deaths and dissolutions of families, were estimated at 945,000 units for 1946 and at 430,000 for the next year. By the end of 1946, therefore, more than 2.5 million families would need homes; and by the end of 1947, according to these calculations, over 3 million families more than the number housed in October 1945, would require additional dwelling units.

The Veterans' Emergency Housing Program, as announced by the President on February 8, 1946, called for a total of 2.7 million new nonfarm homes by the end of 1947. During 1946, 1.2 million new nonfarm dwellings were to be started, according to the blueprints. These units would consist primarily of new conventional type homes and permanent prefabricated houses. They would also include,

[7] Data taken from Veterans' Emergency Housing Program; Report to the President from Wilson W. Wyatt, Housing Expediter, February 7, 1946 (National Housing Agency, Washington 1946).

however, units provided by conversion of existing dwellings, as well as some temporary units and trailers which were to be used only to meet emergency conditions in 1946. Preference was to be given to veterans in both rentals and purchases, except for nonveteran hardship cases. It is interesting to compare these estimates with the foregoing figures on new dwelling units started in nonfarm areas during the past few years, and with the peak year of 1925, when 937,000 new dwelling units were started.

FIRST 6 MONTHS OF 1946

The number of new permanent dwelling units started [8] in nonfarm areas during the first 6 months of 1946 increased more rapidly than ever before. Housing units started for this period (377,200) were two-thirds greater in number (table 3) than for all of 1945 (225,300).

TABLE 3.—*Estimated number of new urban and rural nonfarm dwelling units started, by month and source of funds, January 1945–June 1946* [1]

Year and month	New dwelling units financed by—								
	All sources			Private funds			Public funds		
	Total nonfarm	Urban	Rural nonfarm	Total nonfarm	Urban	Rural nonfarm	Total nonfarm	Urban	Rural nonfarm
1945									
January	7,600	4,954	2,646	7,202	4,954	2,248	398	0	398
February	8,400	6,116	2,284	7,560	5,276	2,284	840	840	0
March	12,300	7,390	4,910	10,715	7,318	3,397	1,585	72	1,513
April	18,300	11,803	6,497	12,456	8,794	3,662	5,844	3,009	2,835
May	16,900	11,398	5,502	14,735	9,970	4,765	2,165	1,428	737
June	20,300	12,461	7,839	18,412	10,823	7,589	1,888	1,638	250
July	20,100	13,818	6,282	16,748	10,861	5,887	3,352	2,957	395
August	17,100	10,940	6,160	16,854	10,796	6,058	246	144	102
September	17,900	12,010	5,890	17,864	11,974	5,890	36	36	0
October	25,500	16,758	8,742	25,141	16,424	8,717	359	334	25
November	30,600	20,093	10,507	30,150	19,643	10,507	450	450	0
December	30,300	20,581	9,719	29,520	19,801	9,719	780	780	0
1946									
January	40,300	28,387	11,913	35,493	23,580	11,913	4,807	4,807	0
February	48,200	33,813	14,387	43,079	28,837	14,242	5,121	4,976	145
March	67,100	45,487	21,613	60,449	39,551	20,898	6,651	5,936	715
April	76,600	51,763	24,837	66,061	42,875	23,186	10,539	8,888	1,651
May	73,000	47,409	25,591	67,526	42,776	24,750	5,474	4,633	841
June	72,000	45,323	25,677	62,371	39,150	23,221	9,629	7,173	2,456

[1] This represents a revision of previous Bureau of Labor Statistics estimates of nonfarm dwelling units started since January 1945 to account for lapsed building permits and for the lag between the actual start of construction and the issuance of building permits. No adjustment for earlier periods is contemplated at present because it is believed these influences were negligible prior to 1945.

[8] New family dwelling units discussed here include permanent privately financed conventional and prefabricated units and publicly financed family dwellings. The publicly financed units include some of a temporary nature. Thousands of conversions, trailers, and dormitory units, included in the National Housing Agency's estimates of units started, completed, and under construction in 1946, are excluded from the figures presented in this article.

Before 1945, building permits represented construction work about to be undertaken in the period specified. Beginning in that year, however, there has been a larger incidence of permit lapses and greater lag, than formerly, between permit issuance and the start of construction. Provision has been made for lag and lapse in permits in all months of 1945 and in 1946, except where data are shown by geographic and other detailed break-downs. In such cases, it should be cautioned that 1945 and 1946 data are for dwelling units scheduled to be started, and are not necessarily under construction, the lag in some instances being of several months' duration.

The estimated number of new private homes completed also increased steadily during the first half of 1946, from 19,000 in January to 35,000 in June. The total number of units completed during this period was 46 percent of those started. Completion figures for the first few months of 1946 represented, for the most part, dwelling units begun in 1945. During May and June, however, a large proportion of the completed structures were houses started in the current year.

The number of private dwelling units started, completed, and under construction in nonfarm areas during the first half of 1946, by months, is shown in the following tabulation.

	Started	*Completed*	*Under construction at end of month*
January	35, 500	18, 700	143, 300
February	43, 100	20, 300	166, 100
March	60, 400	22, 600	203, 900
April	66, 100	26, 400	243, 600
May	67, 500	30, 300	280, 800
June	62, 300	34, 900	308, 200

An even greater increase occurred in the estimated construction cost of nonfarm family units to be started, which reached 1.7 billion dollars during the first 6 months of 1946, or nearly twice the 1945 total of 0.9 billion dollars.

Private and Public Housing During War and Postwar Periods

PRIVATELY FINANCED DWELLINGS

During most of the war years, housing units privately financed comprised about nine-tenths of all residential building, and nearly 3 million were started since 1939.[9] However, as new residential construction declined during the period of the emergency, the percentage decrease from year to year in the number of dwellings financed privately was greater than that for the total number of new units. At first, this was the result of the upward trend in public housing in critical areas, constructed to meet the needs of the war emergency. Later, from 1942 to 1944, private construction was retarded by the general restrictions on building. In 1945, however, there was a 50-percent rise over the previous year in new private housing, and more than 200,000 units were started. The upward trend was accelerated during the first 6 months of 1946 as 335,000 private dwellings were started—a 62-percent advance over the number begun during the whole of 1945.

[9] From 1939 through June 1946, there were approximately 2,773,000 new privately financed dwelling units started.

	Total number privately financed dwelling units	*Percent of change over previous year*	*Percent of all nonfarm dwelling units*
1946 (first 6 months)	334, 979	+61. 9	88. 8
1945	207, 357	+49. 5	92. 0
1944	138, 711	−24. 5	81. 9
1943	183, 728	−39. 0	52. 5
1942	301, 193	−51. 4	60. 7
1941	619, 460	+17. 0	86. 6
1940	529, 571	+15. 5	87. 9
1939	458, 458	------	89. 0

Privately constructed 1-family units remained the most important type of new housing throughout the war period. Over 2 million were scheduled from 1940 through the first 6 months of 1946.

During the first part of the war in Europe (1939 to 1941) private 1-family dwelling units comprised about three-fourths of the total number of new nonfarm dwellings. Over half a million privately financed single units were started in 1941 alone. In 1942 and 1943, as a result of stringent restrictions on nonessential construction and on housing selling at over $6,000, the number of 1-family dwellings declined more sharply than other types of housing. In 1942, when public construction was at its height, the number of 1-family private homes declined more than half. The following year, there was a decrease of 46 percent, and private 1-family homes represented only about two-fifths of the total number of nonfarm dwelling units (table 2).

The effect of the lifting of restrictions on building immediately following the end of the war [10] is evident from the fact that private builders were issued permits for 118,000 new 1-family dwellings from August through December 1945, compared with a total of 115,000 new dwellings of this type started during the entire previous year of 1944.

The rise in number of 1-family private homes to be started continued during the first quarter of 1946, as priorities on building materials were again instituted on January 15 as an aid to the Veterans' Emergency Housing Program. An increase of three-fourths in new 1-family dwellings to be started occurred between February and March 1946, the respective figures being 38,700 and 68,500. On March 26, restrictions on nonessential building similar to the wartime limitations of Conservation Order L–41 were issued by the Civilian Production Administration. The new regulations prohibited nonessential building and limited residential construction to $400, except for dwellings authorized by NHA through priorities. Such emergency housing was to be reserved for veterans for a 60-day period. The limitation on the

[10] In September 1945, schedules I and II to WPB Order P-55–C were revoked and WPB announced that its other wartime controls on construction, including L–41, would be removed on October 15.

selling price of residential construction was raised to $10,000 per one-family unit, with a rental ceiling of $80 or less per month, as compared with the previous figures in 1942 of $6,000 or not over $50 a month rental. The effectiveness of this program is evident from the fact that figures for private 1-family dwelling units to be started in the second quarter of 1946 showed a one-fourth increase over the first quarter of the year.

The average estimated cost of privately constructed 1-family units has increased markedly since the conclusion of the European war.[11] From April to September 1945, the average construction cost of private 1-family dwellings, excluding land, rose from $3,996 to $4,603, or 15 percent (table 4). From September to October, when building restrictions were lifted, the average advanced another 14 percent to $5,244, and remained above $5,000 through July 1946. It is interesting to note that the average cost of private homes reached two high points of $5,574 and $5,788, respectively, in December 1945 and March 1946, just before limitation orders on the selling price of homes were put into effect.

TABLE 4.—*Change in estimated construction cost of new, privately financed 1-family dwellings in nonfarm areas, and events affecting housing, January 1945–July 1946* [1]

Year and month	Privately financed 1-family dwelling units		Events affecting housing [2]
	Estimated construction cost per unit	Percent of change from preceding month	
1945			
January	$3,277		
February	3,568	+8.9	
March	3,746	+5.0	
April	3,996	+6.7	
May	4,235	+6.0	VE-day.
June	4,214	−.5	
July	4,490	+6.5	
August	4,617	+2.8	VJ-day.
September	4,603	−.3	Schedules I and II to P-55-C revoked.
October	5,244	+13.9	P-55 and L-41 revoked.
November	5,200	−.8	
December	5,574	+7.2	
1946			
January	5,313	−4.7	PR-33 issued.
February	5,462	+2.8	
March	5,788	+6.0	VHP Order No. 1 issued.
April	5,577	−3.6	
May	5,475	−1.8	
June	5,498	+.4	
July	5,292	−3.7	

[1] These figures are based upon builders' estimates of construction cost, exclusive of land and improvements. They do not show change in cost of erecting identical buildings, but reflect the change in estimated costs of all buildings to be erected. Estimates of construction costs should not be confused with market or selling price.

[2] Schedules I and II to WPB Order P-55-C imposed materials limitations and limitations on building sizes of approved housing construction. WPB Order L-41 limited nonessential residential building construction to $200 with certain exceptions, unless authorization for priorities were obtained. CPA Order PR-33 provided for preference ratings for scarce materials for use in veterans' homes, VHP Order No. 1 restricted residential construction to $400 except for veterans' housing with priorities.

[11] Construction cost data, as used in this article, are derived by adjusting, for undervaluation, builders' estimates of cost or value as stated on building permits; the cost of land is not included. Construction cost should not be confused with selling price.

PUBLICLY FINANCED DWELLINGS

Housing units financed by public funds—many of them defense or war housing of a temporary nature—accounted for an appreciable part of wartime construction, and increased more rapidly than private housing from 1939 to 1942. In 1939, 57,000 units, or only about a tenth of the new dwellings in nonfarm areas, were financed by public funds; by 1943, the proportion was nearly half the total. During the 5-year period 1939 through 1943, over half a million new units were started from public funds, more than 10 times the number of publicly financed dwellings started in 1939. In 1942, nearly 200,000 dwelling units were started with public funds. Since that time, however, the need for public construction in critical areas has declined, and the construction of new public units has fallen off. In 1944, less than a fifth (18 percent) of all new dwelling units were publicly financed. In 1945, the proportion was only 7 percent, or 18,000 units.

Housing in Relation to Other Construction

The war emergency necessitated a shift in new construction from housing to nonresidential construction for industrial and military purposes. In 1939, new residential building accounted for about a third of all construction expenditures, industrial expansion for 4 percent, and military and naval facilities for 2 percent. Total expenditures for construction amounted to 7 billion dollars. By 1942, the peak year for emergency construction, 13 billion dollars were expended. Of this amount, 8.5 billion dollars, or nearly two-thirds, went for new industrial, military, and naval facilities. This expenditure was greater than the combined figure for all construction in 1943. Residential construction, on the other hand, in 1942 showed a 45-percent decline from the 1941 peak of 3.1 billion dollars and amounted to only 13 percent of all construction expenditures, compared with 32 percent in 1939. This was caused by the drop in private housing, which showed a 55-percent decrease from 1941 to 1942 and continued to decline through 1944.

The downward trend had reversed itself by 1945, and, during the first 6 months of 1946, expenditures for housing rose to 30 percent of the total, indicating a considerable change in the pattern of construction projects.

Housing Trends in 1944 and 1945

In order to understand recent developments in the housing picture, it is necessary to go back to 1944 and 1945 in some detail.

The trend in new dwelling units in nonfarm areas for the years 1944 and 1945 reveals a period characterized by wide fluctuations, resulting from a variety of unusual causes. During this period home construc-

tion reached a low point for the war years, with only 169,300 new family units started in 1944. Monthly figures for new housing dwindled to 7,700 in January 1945 and stood at 8,500 in February. Subsequent months in the year showed increasing gains in the number of new dwelling units. The over-all for the year 1945, amounting to 246,700 new units, registered an advance for the first time since 1941 and a 46-percent rise over the previous year.

The advance in the first half of 1945 was a direct result of the partial relaxation of building controls, under the H–2 War Housing Program, which permitted construction of dwelling units costing up to $8,000 under certain conditions of community hardship. Expansion of the H–3 program for personal hardship cases in critical areas also permitted construction of additional private dwellings without cost limitations.

The lifting of all wartime controls affecting the construction industry which followed the defeat of Japan in August 1945 was reflected in the sharp upturn in residential building for the fourth quarter, in contrast to the usual seasonal variations. New nonfarm dwellings increased 40 percent over the previous quarter, and amounted to about 91,500 units—more than 2½ times the 33,500 units begun in the corresponding 3 months' period in 1944.

The 202,000 single-family dwellings scheduled by private builders were responsible for four-fifths of all new dwelling units in 1945, and showed a three-fourths increase over the previous year. One-family units accounted for about nine-tenths of all private housing in 1945, and showed larger gains than other types of private dwellings. Construction of 2-family units on the other hand, continued to show a decline.

DISTRIBUTION OF NEW DWELLINGS BY SIZE OF PLACE

Urban residential construction accounted for approximately two-thirds of the new nonfarm dwelling units in 1944 and 1945, the remaining third being located in rural nonfarm areas (table 5.) In general, however, rural nonfarm private dwellings had a larger proportionate increase from 1944 to 1945 than urban housing, advancing 71 percent as against 62 percent.

When the figures are analyzed by size of place, however, it is found that the increase in 1945 was greater for small cities and towns than for large cities of over 100,000 population, or even for rural nonfarm areas. Privately financed dwellings showed the largest increases for places under 100,000 inhabitants, in some instances rising over 100 percent, and amounting to more than three-fourths increase for each population class except for the rural nonfarm areas. Publicly financed residential building, on the other hand, declined for each population group.

TABLE 5.—*Number of new dwelling units started* [1] *in nonfarm areas and percent of change, by source of funds, population group, and region, 1944 and 1945*

Area and population group [2] and geographic division	New dwelling units financed by—					
	All sources			Private funds		
	1945	1944	Percent of change	1945	1944	Percent of change
AREA AND POPULATION GROUP						
All nonfarm areas	246,700	169,300	+45.7	228,757	138,711	+64.9
Urban (cities)	162,400	114,799	+41.5	150,712	93,173	+61.8
500,000 and over	31,013	27,078	+14.5	27,933	21,029	+32.8
100,000–500,000	39,170	30,577	+28.1	35,844	25,837	+38.7
50,000–100,000	14,870	9,111	+63.2	14,208	7,934	+79.1
25,000–50,000	15,645	9,922	+57.7	14,968	7,322	+104.4
10,000–25,000	27,949	17,215	+62.4	25,229	14,149	+78.3
5,000–10,000	19,767	11,895	+66.2	19,075	9,363	+103.7
2,500–5,000	13,986	9,001	+55.4	13,455	7,539	+78.5
Rural nonfarm	84,300	54,501	+54.7	78,045	45,538	+71.4
GEOGRAPHIC DIVISION						
United States	246,700	169,300	+45.7	228,757	138,711	+64.9
New England	5,500	2,000	+175.0	5,500	1,960	+180.6
Middle Atlantic	17,900	7,100	+152.1	17,565	6,259	+180.6
East North Central	41,700	30,200	+38.1	39,332	24,757	+58.9
West North Central	12,100	5,800	+108.6	11,600	4,730	+145.2
South Atlantic	43,400	27,900	+55.6	41,040	22,085	+85.8
East South Central	10,700	9,000	+18.9	10,656	7,590	+40.4
West South Central	36,000	27,500	+30.9	34,822	24,940	+39.6
Mountain	11,100	5,800	+91.4	9,700	4,561	+112.7
Pacific	68,300	54,000	+26.5	58,542	41,829	+40.0

[1] In 1945, figures represent units scheduled to be started and are based upon building permits issued and Federal construction contracts awarded. These are not adjusted for lapsed building permits and time lag between issuance of permits and start of construction as in table 1. Such adjustment was not necessary in previous years, when lag and lapse in building permits were not significant.

[2] 1940 census.

REGIONAL AND STATE DISTRIBUTION

Analysis of new dwelling units in nonfarm areas in 1944 and 1945 reveals that the Pacific Coast had the largest concentration of new housing of any region, and represented 28 percent of the total, or 68,300 units, in 1945 (table 5). Over three-fourths of these were in California, which ranked first among the States with 53,800 units.

Between 1944 and 1945, the number of new dwelling units for the Pacific Coast region increased more than a fourth. In the State of Washington the number of new units in nonfarm areas doubled during this period, and in Oregon the advance amounted to more than four-fifths.

These substantial rises in new housing are a reflection of the large population increases which took place during the war years, as defense workers, many of them from farms, migrated to the leading Pacific Coast cities to work in airplane factories, shipyards, and other war industries. From 1940 to 1945, the population of the Pacific States increased over a fourth, or 2.4 million. In addition to the influx of war workers requiring housing facilities, increased employment of the

native population resulted in more people who could afford their own homes or apartments. Moreover, the employment rise since the end of the war in the nonmanufacturing industries—primarily the services and trades—has almost offset the substantial declines in shipbuilding, airframe, and other manufacturing employment on the Pacific Coast since VE-day. The housing situation, therefore, has remained acute throughout this region.

Unless further increases in the number of new housing units are shown for the next few years, the situation will remain tight, because the housing needs of returning veterans and their families who have been living doubled up in single dwelling units will more than compensate for any out-migrants who may have left as the war industries shut down.

Only the Far Western States and the South, where most of the military installations were located, showed population increases during the war years. The Northern States declined, as inductions depleted the civilian population, and war workers migrated to new war centers. The Middle Atlantic States showed a million and a half decrease in population during this period, and the West North Central States declined over a million.

Reflecting its increasing population, the South Atlantic States ranked next to the Pacific in the total number of new dwelling units for which permits were issued or contracts awarded in 1945. This group of States showed 43,400 units or 17.6 percent of all the units in nonfarm areas, and Florida ranked third among the States in number of nonfarm dwellings in 1945, with 17,400. Texas with its many military installations and petroleum industry ranked ahead of Florida, however, with 26,500 new units.

Among the regions, the East North Central States ranked third with 41,700, or 16.9 percent, of the total number of new dwelling units for which permits were issued or contracts awarded in nonfarm areas in 1945. It was estimated that Illinois, with its highly diversified industrial areas, scheduled 12,100 nonfarm units in 1945. During the war years, housing shortages in Chicago occurred as a result of enlargement of the packing and chemical industries, as well as ordnance, and transfer of Federal agencies from Washington, plus expansion of war agencies. Michigan and Ohio, each scheduled 10,400 new dwelling units in 1945. The former, the center of the automotive and aircraft engine industries, experienced acute housing shortages throughout the war years particularly in the Detroit area, where the housing situation remains critical. Ohio, the rubber center of the world, also engaged in wartime production of steel, machinery, chemical products, aircraft, and experienced a housing shortage which has not been relieved.

In New England, where there was an established industrial economy with diversified manufacturing, a population decrease of 3 percent took place from 1940 to 1945. Only 5,500 new dwelling units were reported in nonfarm areas in 1945, or 2 percent of the national total. Although there was much less in-migration than occurred in many areas, the housing situation in New England has remained acute in a number of places, with little prospect of relief as veterans have returned in increasing numbers, and the principal industrial centers have reconverted to peacetime production.

First Year Under New York Law Against Discrimination[1]

CONCILIATION proceedings conducted by the New York State Commission Against Discrimination in the first year of its operation met with marked success. During that time the commission passed upon more than 300 complaints charging discrimination in employment. It was not necessary in any case which reached the conciliation stage to advance beyond it to the next stage—that of a formal hearing.

The New York law against discrimination, which came into effect on July 1, 1945, declares that the opportunity to obtain employment without discrimination is a civil right. It does not dictate to the employer whom he shall employ, but it forbids discrimination in employment practices because of race, creed, color, or national origin,[2] by employers,[3] labor organizations, or employment agencies.

The agency given power to administer the law is the State Commission Against Discrimination, the five members of which are appointed by the Governor, by and with the consent of the senate. The commission has power to receive, investigate, and pass upon complaints involving discrimination in employment. The prompt use of "conference, conciliation, and persuasion" is mandatory as the next step after investigation. The commission may hold hearings and subpena witnesses. It also may create advisory agencies and conciliation councils and initiate surveys and programs tending to eliminate discrimination and promote good will. Penalties are provided for resistance of the lawful work of the commission or willful violation of its orders.

Of the complaints received by the commission in the first 11 months of operation, about half specified color, and about 30 percent creed or religion, as the cause of the alleged discriminatory practice. The remainder, about 20 percent, charged discrimination because of national origin.

Besides the handling of complaints, the work of the commission has included service to employers, nearly 1,000 of whom have requested review of their employment practices in regard to compliance with the law. A number of questions which it had been the practice of employers to include in the inquiries inserted on application blanks were found by the commission to be discriminatory. The commission

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[1] Data are from New York State Commission Against Discrimination, Inside Facts, Albany, 1946; Laws of New York, 1945 (ch. 118); Monitor, Buffalo, June 1946, Operation of State Discrimination Law, by Edward W. Edwards.

[2] The statute provides that the term "national origin" shall include "ancestry."

[3] Provisions of the law do not apply to employers of less than 6 persons, to domestic employees, or to employees of nonprofit organizations of a fraternal, religious, charitable, social, or educational nature.

recognized that such inquiries frequently were made for the purpose of checking on an applicant's honesty and character, and without intent to discriminate; it held, however, that the needed information could generally be obtained through channels that did not reveal the applicant's race, creed, color, or national origin.

Although the law recognizes that there are certain bona fide occupational qualifications, it is held by the commission that, as a general rule and subject to particular facts in specific instances, an attribute of race, creed, color, or national origin will not be deemed a bona fide occupational qualification unless the attribute is material to job performance. Also, it will not as a general rule be considered material to the existence of a bona fide occupational qualification that a certain practice is traditional, or that customers, employers, and employees prefer to deal or work with persons of a particular race, creed, color, or national origin.

Certain rulings of the commission, interpretive of the law, as to questions that may be asked and requirements that may be made of those applying for employment are listed below:

Prohibited questions and requirements	*Permitted questions and requirements*
Inquiry into the place of birth of an applicant for employment, or the place of birth of his parents, spouse, or other close relatives.	
Requirement that an applicant for employment produce a birth or baptismal certificate.	An applicant for employment may be asked his age and may be required to submit proof thereof in the form of a certificate of age or work permit issued by the department of health and the board of education.
Inquiry into the place of residence of the parents, spouse, or other close relatives of an applicant for employment.	
Inquiry into the maiden name of the wife of a male applicant for employment and/or inquiry into the maiden name of the mother of a male or female applicant for employment.	A married woman who applies for employment may, however, be required to state her maiden name.
Inquiry into the original name of an applicant for employment whose name has been changed by court proceedings or otherwise.	

Prohibited questions and requirements—Con.	*Permitted questions and requirements*—Con.
Inquiry whether an applicant for employment is a naturalized or native-born citizen; the date when the applicant acquired citizenship; whether the applicant's parents or spouse are naturalized or native-born citizens of the United States; the date when the applicant's parents or spouse acquired citizenship.	An applicant for employment may be asked, "Are you a citizen of the United States?" If the applicant states that he is not a citizen of the United States, he may be asked, "Do you intend to become a citizen of the United States?"
	An applicant for employment may be asked, "Have you ever been interned or arrested as an enemy alien?"
Requirement that an applicant for employment produce his naturalization papers.	
Inquiry into the whereabouts of an applicant for employment during the First World War, i. e., the period from 1914 to 1919.	
Inquiry into the religious denomination of an applicant for employment, his religious affiliations, his church, parish, pastor, or religious holidays observed.	An applicant for employment, however, may be asked, "Do you regularly attend a house of religious worship?"
He may not be asked, "Are you an atheist?"	Inquiry may be made into the public and private schools attended by an applicant for employment.
	Inquiry into the character and the work experience of an applicant for employment may be made.
Inquiry may not be made in regard to the location of businesses of relatives in other countries.	Applicants may be asked the location in the United States of places of business of relatives.
	Inquiry may be made into the name, address, and relationship of persons who are to be notified in case of accident.
An applicant for employment may not be told, "The following holidays will be observed by this firm, and no others: Decoration Day, July Fourth, Christmas, and New Year's Day."	He may be told, "This is a 6-day job—employees are required to work Monday through Saturday, inclusive."

Prohibited questions and requirements—Con.	*Permitted questions and requirements*—Con.
He may not be told, "This is a — (Catholic, Protestant, or Jewish) organization."	
Inquiry into the lineage of an applicant for employment, his racial ancestry, or nationality.	
Inquiry into the military experience of an applicant for employment unless limited to the applicant's experience in the armed forces of the United States or State Militia.	
Inquiry into the complexion of an applicant for employment.	
Requirement that an applicant for employment annex a photograph.	
Inquiry into the organizations of which an applicant for employment is a member, unless the inquiry excludes organizations the name or character of which indicates the religion, race, or national origin of its members.	The applicant, however, may be asked "Are you a member of the Communist Party or German American Bund?"

The law provides that no publicity shall be given to the stages of investigation and conciliation. Since no problems handled in the first year went beyond the conciliation stage, the charges and the outcomes of proceedings were not published, except in instances in which the employer himself announced the results. One employer of hundreds of workers, who made changes in his practice after a charge of discrimination, expressed his satisfaction with the results in these words: "Some of the new people I've hired are outstanding. This is a good law. I'm glad I've hired these workers. You ought to point out to employers the benefits they get from an increased labor market when they have access to so many more qualified workers."

The restriction against making public the results of conciliation in specific instances prevented the general public from knowing at once when some large company opened its doors to members of previously excluded minority groups. It was observed, however, that employment patterns in telephone offices, banks, department stores, and insurance companies had been liberalized.

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Inflation Problems at Home and Abroad[1]

WORKING people and governments throughout the world have been following price movements with close attention, concerned with the effects of rising prices on purchasing power and levels of living. Although the current war against inflation is waged by nations individually, it is, in many respects, an international struggle. Shortages of coal and other raw materials for industrial production and of basic necessities for human consumption are world-wide. The price structures of different countries are linked by reviving international trade, and success or failure in coping with the price problems in one country affects other countries. Because of the long period when manpower and productive facilities were diverted to war purposes, the spending power of consumers almost everywhere is greater than the available supply of consumer goods at current prices. To offset the imbalance between spending power and the supply of goods, most countries have continued wartime rationing and price control with varying degree of effectiveness.

The chief problem of countries outside the battle zones arises from meeting demands for civilian goods which accumulated during the time when production was concentrated on military goods. Obvious causes of pressure on prices in most parts of Europe and many parts of Asia are the destruction of productive facilities and manpower losses. In areas such as Latin America, an important part of the difficulty stems from the increased prices or unavailability of goods that were formerly imported.

In some countries, mainly those that are highly industrialized, either law or the operation of economic forces kept prices from rising more than 30 to 60 percent between the start of the war in 1939 and the end of 1946. Among these nations which came out of the war period with their productive capacities relatively unimpaired or even improved are the United States, England, Canada, Australia, New Zealand, Sweden, and Switzerland. In less industrialized areas and even in certain industrial countries, prices have risen to many times the prewar level. In Belgium, for example, the restoration of prewar production levels has proceeded more rapidly than in most other parts of the war area; nevertheless prices are about three times the prewar level. In China and many Latin American countries, which were never highly industrialized, the bulwarks against inflation were weak or nonexistent.

The inflation problem, as it existed at home and abroad at the end of 1946, is summarized in the present article. Examples are given of the various types of situations which prevail in different groups of countries.

[1] Prepared by Irving B. Kravis with the assistance of other members of the Staff on Foreign Labor Conditions, under the direction of Faith M. Williams.

Economic Forces Behind Price Movements

COUNTRIES WITH RELATIVELY LIMITED PRICE INCREASES

One of the striking features of the price problem in the United States is that the difficulties are not attributable to a general decline in the supply of consumer goods. On the contrary, the over-all supply of consumer goods has, if anything, expanded rather than contracted since 1939. It is true that most durable goods were not available during the war years, but such products accounted for only about 10 percent of 1939 consumers' expenditures. The total value of consumer goods and services in the United States rose from 61.7 billion dollars in 1939 to 106.4 billions in 1945, and it is obvious that all of the increase was not the result of rising prices.

The inflationary pressures in the United States appear to be caused chiefly by higher money incomes; national income rose from 70.8 billion dollars in 1939 to 161.0 billions in 1945. During the war period, deficit financing contributed to the increase of money incomes; after hostilities ended, there was a drastic decline in Government expenditures while taxation was held at wartime levels. The solution of the price problem depends primarily upon the increased production and marketing of goods to match high incomes.

The United States economy is subject to pressures from other countries in the form of higher prices for such important imports as tin, copper, lead, zinc, coffee, cocoa, and sugar. In general, however, the United States price level is less sensitive to foreign price movements than are the price levels of countries more dependent on foreign trade.

On the other hand, rising prices for United States exports of industrial equipment and consumer goods affect countries dependent upon the United States for these goods. The elimination of most price controls in November 1946, for example, caused sharp repercussions throughout the world.

Canada is the country most closely connected with the United States in an economic sense and has probably been affected most directly by developments in the States. Shortages in the United States of materials and parts, upon which Canadian industrial production depends to a great degree, has been an important factor retarding the increase in the level of civilian production in Canada. According to the Canadian Minister of Finance "perhaps the greatest threat to the stability of prices in Canada comes from the rise in prices in the United States and to a lesser extent in other countries."

The Minister also recognized that Canada is facing production problems and difficulties with excess purchasing power. The revaluation of the Canadian dollar in July 1946 offset somewhat the effects

of rising prices of United States imports. Canada, as a member of the British Commonwealth, has contributed—in relation to her resources—more directly to easing the world-wide shortage of basic necessities; rationing of meat, for example, was reinstituted in September 1945 so that meat could be shipped abroad. However, the quantity of consumer goods available in Canada expanded during the war years; according to an estimate of the Wartime Prices and Trade Board, the level of consumption was more than 20 percent higher in 1945 than in 1939. Even so, money in the hands of consumers was greater than the value of the goods available.

The English experience contrasts with that of the United States and Canada. As in the North American countries, total private income before taxes rose sharply during wartime. Nevertheless, consumers' expenditures in terms of 1938 prices dropped from 3.6 billion pounds in 1939 to 3.1 billions in 1945. Production for the home civilian market was increased sharply after the war ended, but it was restricted in favor of greater production for export. This was necessary because foreign credits were required to finance imports of food and of raw materials essential to the reconversion of British industry. It is estimated that civilian consumption of clothing, furniture, and housefurnishings in the summer of 1946 was still less than two-thirds of 1935 levels. As a result, many articles of clothing, furniture, and food remained on the rationed list in Britain more than a year after the end of the war. Prices of essential commodities have, in general, been kept under control successfully. The rise in prices, particularly for foods, has been checked through the extensive use of subsidies and control over supply.

Sweden successfully maintained a wartime stabilization program, but was confronted with intensified inflationary pressures after hostilities ended. Foreign demand for Swedish products stimulated an expansion in investment and further diverted the use of Sweden's limited resources of raw materials and labor from consumer-goods production. High prices abroad encouraged exports and made it difficult for Sweden to import without raising domestic prices. The upward revaluation of the Swedish krona in July 1946 by 17 percent cheapened imports somewhat. Extension of large credits to England and Russia paved the way for heavy exports that will not be balanced by immediate imports. The shortage of labor is indicated by the fact that in June 1946 there were on the average only 79 applications for each 100 vacancies as compared to 103 for 100 vacancies in June 1945. All these factors brought the wage-price issue to the fore once more. The December 1946 master wage agreement between workers' and employers' associations, affecting about a million workers, ended the wage–cost-of-living tie in the old agreement, and granted a 5-

percent wage increase as of May 1947. Meanwhile, the Government completed plans to subsidize imports, chiefly textiles and shoes, to offset foreign price increases.

COUNTRIES WITH LARGER DEGREES OF INFLATION

In the countries that have been less successful in combating inflation, reasons for lack of success have varied. In several, the destruction caused by war has made the restoration of productive capacity a slow process. Others, normally dependent upon foreign sources for essential consumer goods, found difficulty in purchasing food and other essentials abroad, and such supplies as were available were high priced. Former enemy countries were faced, in some cases, with relatively heavy drains on current output in the form of occupation costs and reparations payments. Another factor which was important in certain areas was the break-down in transportation systems. Finally, the fiscal policy of certain governments has been an important source of inflationary pressure.

Although official food prices in Belgium early in 1946 were several times the prewar level,[2] the Belgians had maintained a degree of stability in late 1946 which is outstanding for a country ravaged by war. This resulted in no small measure from the drastic program of monetary contraction planned while the Belgian Government was still in exile. In October 1944, 60 percent of all bank deposits were blocked and subsequently were liquidated by means of a 3½-percent currency stabilization loan. After the war's end Belgian exports rose steadily and despite shortage of men and materials Belgium was planning for a larger volume of foreign trade. In exchange for an agreement by trade-unions not to press for wage increases beyond the September 1945 level, the Belgian Government undertook in May 1946 to roll retail prices back 10 percent. A wave of strikes followed and brought about another crisis at the beginning of July which was resolved by another understanding between labor and Government. The general principles of a wage freeze and price reduction were retained, but before the end of 1946 prices had risen to the levels prevailing before the price reduction began, minimum hourly wage rates had been increased, and wage readjustments had been applied in several instances.

Conditions in France began to improve almost from the very moment of liberation. By the third quarter of 1946, the rate of output of coal and electric power reached or surpassed prewar levels, and general industrial activity had risen to 80 percent of prewar. The 1946 food crop was good, but, as in many other countries, supplies were held back by producers in anticipation of higher prices. France has, moreover, been confronted with a wage-price problem of the first

[2] See Monthly Labor Review, July 1946 (p. 30).

magnitude. A long drawn-out crisis on wage increases began with the June 1946 election-eve demands of the General Confederation of Labor for a 25-percent rise. A temporary settlement was reached on July 30, with the publication of a decree authorizing revisions which have increased wage rates 18 to 30 percent. Despite this general wage increase, wages still lagged behind the rise in prices.

The Paris index of 34 retail prices (mostly food) continued to rise after the July decree granting wage increases; it moved from 576 in July to 858 in October (1938=100). Part of the increase in the index was caused by the elimination of subsidies for milk, sugar, and butter and to the reduction of subsidies on other items, including wheat, causing an almost twofold increase in the official price of bread. (The Minister of Finance estimated that the continuance of all subsidies would have involved expenditures equivalent to a quarter of the revenue expected in 1946.) Labor leaders have maintained that the 34-items index fails to reflect the actual increase in prices because of its limited coverage and because it does not include prevalent black-market prices. They have intensified their campaign against rising living costs.

Hungary, perhaps, has had the most disastrous experience of any European country. The advance of inflation may be judged from the movement of the cost-of-living index in the last half of 1945; by November it was 18 times as high as in July, and by December it was more than 350 times the July level. From then on, the price structure moved rapidly toward complete collapse. By the summer of 1946, it is reported that people were literally throwing away smaller notes in the streets. According to the official United States view, the inflation was caused in no small part by the diversion of current output (greatly reduced in the first instance by war damage) to Russia in payment of reparations and occupation costs. In a note to Moscow in July 1946, the United States Government maintained that over half of the current manufacturing output in Hungary was going to Russia. The Russians, on the other hand, stressed the German transfer of almost all movable wealth from Hungary as the main causal factor. In August, the worthless pengõ was withdrawn from circulation and replaced by the forint. The Hungarian Government successfully stabilized this unit, which was pegged at 11.6 to one United States dollar.

China is another country that has suffered from severe inflation. Some idea of its extent may be obtained from the depreciation of the Chinese dollar in terms of the American dollar: in the middle nineteen thirties an American dollar was worth 3 or 4 Chinese dollars; at the end of 1946 it was worth 3,350 at the official rate and even more on the black market. Transportation difficulties greatly accentuated

Chinese problems. China has never had an adequate system of rail or road transport. In its existing state of disintegration the network has proven completely inadequate for the heavy tasks imposed upon it. Food surpluses have existed in one province simultaneously with famine conditions in another province a few hundred miles away. Prevailing civil war conditions in large parts of China have greatly retarded the return of production and consumption to peacetime levels.

In China, Hungary, and almost all countries where money has depreciated in value rapidly, barter has increased. In Germany, currency has not changed in value, yet barter has displaced monetary exchange to a point that it threatens to destroy the entire system of incentives connected with a price economy. The unique feature of the German situation is that although the Allied Military Authorities successfully avoided the usual kind of inflationary spiral of wages and prices, goods have remained so scarce and marks so plentiful that people are reluctant to exchange either services or goods for marks. Absenteeism among workers—who stay away from their jobs in order to barter with farmers for food—is an increasingly common occurrence; it is reported that many wage earners stay on their jobs primarily because they get larger rations when they are employed. Shortages of labor and particularly of skilled labor are general. Businessmen, in possession of large quantities of bank deposits as well as cash, have little incentive to exchange goods for marks of dubious value or to plan for increases from the current low level of productivity. Thus, the universal lack of confidence in the currency has greatly hampered the upswing in German production.

Latin America's price problems arise to a much greater degree from external factors than is the case in other areas. In spite of the wartime impetus to industrialization in Brazil, Mexico, and other countries, Latin America is still principally a raw-material economy. Wartime demand for the continent's raw materials was very great and exports rose rapidly. Imports—through which Latin America obtains most of her necessary industrial products—were curtailed because of both the wartime scarcity of shipping and the diversion of resources to war production in countries which normally supplied this region. The tremendous excess of exports over imports increased holdings of foreign exchange from approximately 1 billion dollars in 1941 to 5 billion dollars in the fall of 1946, thereby adding to inflationary pressures in Latin America. The outcome was a large increase in currency circulation, bank deposits, and credit in most of the countries; for example, between the latter part of 1941 and the early part of 1946, currency in circulation tripled in Bolivia and Ecuador and increased by six and a half times in Venezuela. The Mexican monetary situation illustrates the effects of these forces: one of the important factors

contributing to the higher cost of living is the rise in money in circulation by more than 400 percent between 1934 and 1946, while the physical production of goods and services increased only 25 percent. As increased imports become available, the situation in many countries may be expected to improve.

Not all of the factors making for inflation in Latin America originated in wartime conditions; in some instances the war only developed difficulties that had been latent. In Brazil, for example, the beginning of the inflation problem goes back to the early 1930's when the Government first undertook a program of industrialization and began to issue increasing amounts of paper money. The issuance of such currency reached large proportions in most of Latin America during the war.

Industrialization, which increased sharply in some of these countries, consumed scarce materials and attracted rural labor to urban areas. The result was that the demands on rural production increased at the same time that workers were being withdrawn. Transport also proved inadequate to the greater burdens placed upon it, particularly after the flow of gasoline from the United States was reduced to a trickle because of the needs for the war effort and submarine warfare.

High freight and transportation costs, speculation, black-market activities, and high-profit margins—which constitute inflationary pressures in many regions throughout the world—are sometimes of great importance in Latin America. In one country, it was reported that goods were "invariably" sold at prices from 200 to 600 percent and more above their landed cost plus duties.

Higher prices in North America and Europe are also felt in Latin America. Some Latin Americans are concerned over drastic declines in the value of their large dollar and sterling credits because of rising prices in the countries from which they import.

For the countries of the Far East and of Latin America, long distances from both North American and European markets and sources of finished goods have magnified the effect of higher ocean freight rates, which by the spring of 1946 had increased on an average of from 50 to 100 percent over 1939 levels.

Government Intervention in the Price System: Price Control, Rationing, and Subsidies [3]

COUNTRIES WHERE INTERVENTION HAS BEEN REDUCED

Most Governments found it necessary to intervene in the operation of the price system during the war period and to retain the controls at least to a limited extent in the postwar era. Price control, ration-

[3] This subject has been treated in more detail in the Monthly Labor Review for November 1945 (pp. 882-900) and for May 1946 (pp. 777-790). The situation described in these articles remains substantially the same except for the trends noted in this section.

ing, and subsidies have been the devices most commonly employed in order to aid in the equitable distribution of scarce goods and to avoid runaway inflation. By the end of 1946, certain countries had gone further than others in lifting these controls.

The United States has decontrolled prices and wages more rapidly than any other large country. From August 1945 to mid-November 1946, the Bureau of Labor Statistics consumers' price index had risen 17.4 percent. Between the middle of June 1946, the last pricing date when the old price control law was still in effect, and the middle of November, when many but not all of the controls had been lifted, the index rose 13.8 percent.

In Canada, a similar movement toward the withdrawal of Government intervention occurred during the first half of 1946. However, the 4.3-percent rise in the cost-of-living index between January and July and the weakening of price controls in the United States led the Canadians early in July to retard their decontrol program. Thus, although subsidies were withdrawn and price control eliminated in many instances, Canada still retained its wartime system of price control, subsidies, rationing, and governmental bulk purchasing over a significant segment of the economy. Food subsidies, for example, were being paid at an annual rate of about 90 million dollars early in November 1946 as compared with their peak rate of 130 million dollars in 1945. However, wage and salary controls were lifted at the end of November 1946 and plans for the rapid removal of other controls were announced. The Canadian cost-of-living index rose 5.2 percent between August 1945 and October 1946.

COUNTRIES WHERE INTERVENTION HAS BEEN CONTINUED

In most of Europe, fear of an inflationary wage-price spiral has kept price stabilization programs in force and in some cases even strengthened them. Generally, however, upward price adjustments have been made continuously in response to the pressures already described.

Either by exclusive purchasing for resale to consumers or by licensing domestic production and imports, the British Government maintained close controls over the supply and distribution of consumers goods that were only slightly relaxed after the end of the war. The more important foodstuffs (except potatoes, fish, and fresh vegetables) and clothing and furniture remained on the ration list; the food rations are changed as the supply situation alters. Prices of many rationed products are kept down by subsidies, which will cost approximately 1.3 billion dollars in 1946–47.

Rationing is still prevalent throughout Europe, even in countries like Sweden and Switzerland which have fared relatively well. Bread, meat, fats, and sugar constitute the minimum list of rationed foods in

almost all countries; coffee, chocolate, rice, and dairy products are usually found on the list too. The quantities included in the ration vary, as in Great Britain, according to the available supplies. Favorable crops in 1946 made it possible to increase rations in most parts of Europe. The size of the ration has been greater in some places than in others. In Italy, where the food situation has been particularly unfavorable, an average of 724 calories was supplied daily to normal consumers in eight large cities during the first half of 1946. In France, on the other hand, official rations of meat, milk, sugar, bread, and other items were approximately 1,300 to 1,400 calories per day in the third quarter of 1946.

Various attempts to control prices in Latin America have been largely ineffective. Price ceilings, rent control, Government requisitioning and distribution of supplies, and profit restrictions are among the devices that have been provided by legislation or decrees.

Statistics of Prices

A WARNING NOTE ON THE USE OF PRICE INDEXES

The following tables present official indexes of retail (cost of living) and wholesale prices in a number of countries. For reasons discussed below, *many of these indexes must be regarded as conservative estimates of the increase in prices.* Some of them are more accurate measures of price changes than others; and without specific knowledge of the degree of reliability of each index, comparisons between the extent of price changes in various countries should not be made except to obtain rough approximations of the relative price movements.

In the very nature of the changes they are designed to measure, price indexes perform least satisfactorily in times of significant variations in the patterns of production and consumption, as in a war period or in the present postwar era. Yet these are the times when labor, business, and government agencies would like to lean most heavily on such indexes for guidance in policy formulation. The cost-of-living type of price index is devised to measure variations in the cost of a *fixed* basket of the more important goods and services purchased by families of urban wage earners. Some of them reflect in their weighting patterns changes in family expenditures, which may be caused by alterations in the composition of the basket purchased as well as in prices; most of them do not.

During periods of change in the nature of production and consumption, price indexes may not reflect price movements accurately because of the difficulty of comparing the usefulness of new goods with that of goods formerly produced and consumed, and in addition there may be and frequently are important changes in the quality of the goods available for pricing from time to time. In periods when

governments have fixed ceiling prices, some goods are always sold above the ceilings in regular markets and some in hide-away and fly-by-night markets. Many official statistical agencies take the position that the prices used in computing official price indexes should cover, in the proper proportions, not only ceiling prices but also above-ceiling prices charged in regular markets but not prices in irregular channels. This is the practice of the United States Bureau of Labor Statistics. Other official statistical agencies use only ceiling prices in index computation. Explanations of the pricing procedures used are not available for the indexes of many foreign countries and this lack is a great handicap in the interpretation of the figures.

Where black markets are very widely patronized and where the discrepancy between official and free prices is very great, price indexes may grossly understate the increase in the prices actually paid by most purchasers of goods. For example, a report comparing ceiling prices with actual prices in 11 representative markets in one Latin American city showed that actual prices of certain staples ranged from 129 to 200 percent of ceiling prices.

Understatement of the actual extent of price increases may result also as a byproduct of the use of subsidies. Subsidies—which provided producers with incentives to maintain or increase output without making price increases necessary—have been applied to consumer goods as a means of circumventing the disastrous wage-price spiral. However, in some countries where wages have been tied to the cost of living, subsidies have sometimes been used to keep *the cost-of-living index* from rising but not the total cost of living to the average consumer. This is possible because cost-of-living indexes, in the interest of economy, are almost always based on the price movements of a smaller number of goods than wage earners actually buy. Since in normal times the prices of closely related commodities move together, price changes for an entire group of products are indicated by the price movements of one or two typical items. When the particular commodities priced for the index are selected for subsidization, however, a downward bias is immediately introduced.

An example of the effect of subsidies in contributing to the understatement of price increases may be found in the British cost-of-living index. Many important items in the index—which is based on a 1914 worker's budget and does not allow for subsequent changes in consumption habits—are subsidized. Thus, although the cost-of-living index stood at 31 percent above the prewar level early last summer, it was recognized in an official publication that the actual increase in consumers' prices was closer to 50 percent.[4]

[4] British Information Services: Labor and Industry, in Britain, June 1946 (p. 93).

Despite these difficulties, the price indexes are presented in the following pages because they represent the best data that are available on the movement of prices. By regarding them as minimum estimates of the extent of price rises, serious errors in interpretation will be avoided.

RETAIL PRICE INDEXES

Most of these indexes show changes in retail prices of commodities, rents, and services in cities. Footnotes indicate those with more restricted coverage.

TABLE 1.—*Indexes of retail prices (living costs) in American republics, August 1939–November 1946*

[August 1939=100]

Year and month	United States [1]	Bolivia (La Paz)	Brazil (Rio de Janeiro)	Chile (Santiago)	Colombia (Bogota)	Costa Rica (San Jose)	Mexico (Mexico City) [2]	Peru (Lima)	Uruguay (Montevideo)	Venezuela (Caracas) [3]
Number of items included	184	56	144	56	53	60	32	([3])	65	37
1939: August	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
December	101.0	115.5	101.5	105.6	98.9	98.3	99.6	102.5	104.1	96.9
1940: August	101.4	124.9	105.2	115.6	96.7	97.2	99.1	109.0	105.7	92.7
December	102.1	135.0	107.7	116.0	93.6	96.5	101.0	111.6	106.5	99.1
1941: June	106.1	158.6	[4] 115.6	129.3	99.1	100.0	102.7	114.9	106.3	([3])
December	112.1	182.5	120.5	142.5	97.7	105.4	115.1	123.6	104.4	92.7
1942: June	118.1	202.7	127.2	162.2	105.8	114.7	120.9	129.5	108.6	103.0
December	122.1	236.0	141.1	179.1	111.2	138.3	127.7	134.0	108.6	107.3
1943: June	126.6	256.2	141.0	196.5	122.0	165.2	160.1	141.7	111.6	111.8
December	126.2	255.9	147.5	193.4	132.8	155.1	174.7	149.2	111.2	107.8
1944: June	127.2	266.7	156.4	209.2	151.4	163.1	202.5	163.4	116.7	140.3
December	128.8	275.4	168.9	222.4	157.4	174.5	200.5	169.6	121.4	130.3
1945: January	128.9	276.4	183.0	221.4	160.6	175.2	201.3	173.1	123.6	127.8
February	128.7	276.4	183.2	222.8	165.8	173.6	201.6	175.1	127.1	129.1
March	128.6	277.4	182.8	224.0	172.5	174.5	202.3	176.1	129.2	127.6
April	128.9	274.1	185.3	226.8	171.3	177.5	205.0	177.2	129.0	130.0
May	129.9	274.1	182.5	227.6	175.0	172.4	206.9	180.3	130.1	134.1
June	130.8	274.7	184.5	229.8	166.4	173.4	209.1	180.9	131.9	135.7
July	131.2	285.5	187.0	229.9	162.5	174.5	213.8	181.9	135.5	132.6
August	131.1	290.6	185.9	231.9	161.5	173.8	218.0	182.4	143.1	132.0
September	130.7	287.5	184.3	242.0	161.2	173.9	220.8	183.6	137.5	131.8
October	130.7	294.0	187.1	248.7	158.3	173.2	222.9	186.0	137.9	126.6
November	131.1	296.3	188.7	236.8	158.5	171.6	224.9	186.6	139.1	127.7
December	131.7	296.6	185.2	239.8	161.6	170.8	231.5	188.1	137.6	126.3
1946: January	131.7	293.6	200.0	241.8	169.0	170.8	241.9	189.1	140.5	136.3
February	131.4	294.3	199.4	240.2	173.2	170.6	242.6	189.1	141.9	133.8
March	132.0	294.3	[5] 197.0	242.6	180.9	170.5	246.9	190.1	143.4	134.2
April	133.0	294.9	[5] 201.0	247.7	181.1	170.9	250.2	192.9	142.5	133.8
May	133.6	296.6	[5] 201.0	253.9	174.0	173.5	256.7	194.1	146.0	135.1
June	135.2	298.7	[5] 202.0	262.6	172.6	175.4	264.2	196.2	148.1	137.7
July	143.2	300.7	210.0	266.2	177.4	179.1	267.0	197.8	149.9	136.8
August	146.1	308.8	210.6	274.7	181.1	184.0	272.1	200.8	149.9	----
September	148.0	307.7	216.6	287.8	181.7	186.5	276.5	202.5	149.4	----
October	150.5	308.4	214.6	296.4	183.9	189.3	282.2	204.5	----	----
November	153.9	----	----	----	190.8	194.4	----	----	----	----

[1] The "consumers' price index for moderate-income families in large cities," formerly known as the "cost of living index," measures average changes in retail prices of selected goods, rents, and services, weighted by quantities bought by families of wage earners and moderate-income workers in large cities in 1934–36. The items priced for the index constituted about 70 percent of the expenditures of city families whose income averaged $1,524 in 1934–36. The index only partially shows the wartime effects of changes in quality, availability of consumer goods, etc. The President's Committee on the Cost of Living has estimated that such factors, together with certain others not fully measured by the index, would add a maximum of 3 to 4 points to the index for large cities between January 1941 and September 1944. If account is taken of continued deterioration of quality and disappearance of low-priced merchandise between September 1944 and September 1945, which was estimated at an additional ½ point, the total large-city adjustment would be 4.5 points. If small cities were included in the national average, another ½ point would be added, making the total approximately 5 points.

[2] Index does not include rent.

[3] Not available.

[4] August.

[5] Primary data not available; calculated from secondary source.

TABLE 2.—*Indexes of retail prices (living costs) in countries of the British Commonwealth, August 1939–November 1946*

[August 1939=100]

Year and month	United Kingdom	Australia	Canada	India (Bombay)	New Zealand	Palestine [1]	Union of South Africa
Number of items included	70	171	147	89	221	140	[2]
1939: August	100.0	100.0	100.0	100.0	100.0	[2]	100.0
December	111.6	[3] 101.1	103.0	108.0	102.4	[2]	101.1
1940: August	119.4	104.7	105.1	109.0	104.7	[2]	104.2
December	125.8	[3] 107.7	107.1	110.0	105.8	[2]	105.1
1941: June	129.0	[4] 109.1	109.6	116.0	107.4	[2]	109.1
December	129.7	[3] 112.4	114.9	123.0	110.6	[2]	111.4
1942: June	128.4	[4] 118.1	115.8	145.0	110.4	185.0	118.8
December	129.0	[3] 122.5	117.9	179.0	113.4	211.0	121.0
1943: June	127.7	[4] 124.9	117.6	224.0	113.4	248.0	125.9
December	128.4	[3] 122.6	118.4	235.0	113.5	230.0	127.1
1944: June	129.0	[4] 122.9	118.1	225.0	113.5	238.0	130.5
December	129.7	[3] 123.0	117.6	225.0	113.8	252.0	132.0
1945: January	130.3	----------	117.7	218.0	----------	254.0	132.4
February	130.3	122.6	117.7	218.0	----------	253.0	132.3
March	130.3	----------	117.8	214.0	114.0	258.0	132.8
April	130.3	----------	117.8	215.0	----------	257.0	133.1
May	131.0	122.9	118.1	219.0	----------	257.0	133.6
June	131.6	----------	118.7	224.0	113.9	254.0	133.8
July	133.5	----------	119.3	229.0	----------	256.0	133.9
August	132.3	123.0	119.5	231.0	----------	257.0	132.7
September	131.0	----------	118.9	229.0	113.5	258.0	132.8
October	131.0	----------	118.7	230.0	----------	260.0	133.3
November	131.0	123.3	118.9	230.0	----------	258.0	133.2
December	131.0	----------	119.1	230.0	113.7	259.0	133.2
1946: January	131.0	----------	118.9	230.0	----------	262.0	133.7
February	131.0	123.9	118.9	231.0	----------	259.0	134.5
March	131.0	----------	119.1	235.0	114.4	258.0	135.4
April	130.9	----------	119.8	236.0	----------	266.0	135.9
May	131.6	125.0	121.0	237.0	----------	261.0	135.6
June	131.0	----------	122.6	247.0	114.2	260.0	136.2
July	132.3	----------	124.1	255.0	----------	261.0	134.4
August	132.3	125.1	124.6	----------	----------	261.0	133.9
September	131.0	----------	124,5	----------	114.2	273.0	134.3
October	131.0	----------	125.8	----------	----------	----------	----------
November	131.0	----------	126.1	----------	----------	----------	----------

[1] "Prewar"=100. [2] Not available. [3] November. [4] May.

TABLE 3.—*Indexes of retail prices (living costs) in countries of Europe and the Middle East, August 1939–November 1946*

[August 1939=100]

Year and month	Denmark	France (Paris) [1]	Norway	Sweden	Switzerland	Egypt	Iran
Number of items included	78	34	170	170	67	60	[2]
1939: August	[3] 100.0	100.0	100.0	[3] 100.0	100.0	100.0	100.0
December	[4] 104.0	107.0	106.0	[4] 101.0	104.0	107.0	102.6
1940: August	[5] 127.0	119.0	115.9	[5] 115.0	110.0	113.3	111.8
December	[4] 136.0	126.0	129.5	[4] 117.0	117.0	122.6	115.8
1941: June	[6] 144.0	144.0	137.8	[6] 130.0	128.0	136.1	142.4
December	[4] 151.0	148.0	142.6	[4] 131.0	134.0	153.4	189.1
1942: June	[6] 150.0	162.0	146.1	[6] 138.0	141.0	176.5	251.5
December	[4] 155.0	181.0	147.6	[4] 141.0	146.0	215.0	385.0
1943: June	[6] 156.0	204.0	149.4	141.0	148.0	241.2	620.0
December	[4] 156.0	237.0	150.2	141.0	150.0	257.2	764.0
1944: June	[6] 157.0	259.0	151.3	140.0	152.0	276.9	796.0
December	[4] 158.0	284.0	151.5	140.0	152.0	292.0	661.0
1945: January	158.0	285.0	151.6	----------	153.0	293.1	690.0
February	----------	294.0	151.7	----------	153.0	294.1	693.0
March	----------	297.0	151.9	140.0	153.0	295.6	684.0
April	158.0	301.0	153.8	----------	153.0	292.8	677.0
May	----------	329.0	153.9	----------	153.0	290.3	658.0
June	----------	364.0	154.4	140.0	153.0	290.0	637.0
July	158.0	368.0	154.6	----------	153.0	293.0	612.0
August	----------	376.0	154.9	----------	153.0	295.4	601.0
September	----------	419.0	155.8	140.0	153.0	297.7	588.0
October	158.0	426.0	153.9	----------	152.0	293.2	586.0
November	----------	454.0	154.2	----------	151.0	290.6	603.0
December	----------	460.0	155.1	139.0	151.0	289.5	627.0

See footnotes at end of table.

TABLE 3.—*Indexes of retail prices (living costs) in countries of Europe and the Middle East, August 1939–November 1946*—Continued

Year and month	Denmark	France (Paris) [1]	Norway	Sweden	Switzerland	Egypt	Iran
1946: January	158.0	445.0	155.9	----------	151.0	290.8	649.0
February	----------	446.0	155.8	----------	150.0	289.8	649.0
March	----------	454.0	156.1	139.0	150.0	287.5	622.0
April	157.0	455.0	156.5	----------	150.0	285.4	579.0
May	----------	506.0	156.7	----------	150.0	284.0	535.0
June	----------	534.0	157.0	140.0	151.0	283.0	532.0
July	157.0	533.0	157.7	----------	151.0	285.0	515.0
August	----------	676.0	158.9	----------	151.0	----------	524.0
September	----------	726.8	158.6	140.0	151.0	----------	546.0
October	159.0	794.4	158.2	----------	155.0	----------	557.0
November	----------	----------	159.9	----------	----------	----------	----------

[1] Food, fuel, light, and soap only. [2] Not available. [3] July 1939. [4] October. [5] July. [6] April.

WHOLESALE PRICE INDEXES

The wholesale price indexes are based on prices paid for goods sold in primary markets, weighted in accordance with their relative importance in the countries concerned. The number and kind of items covered, the method of collecting prices, and the method of computing the indexes differ from country to country.

TABLE 4.—*Indexes of wholesale prices in American republics, August 1939–November 1946*

[August 1939=100]

Year and month	United States	Argentina (Buenos Aires)	Chile (Santiago)	Colombia (Bogota)	Costa Rica (San Jose)	Mexico (Mexico City)	Peru (Lima)	Venezuela (Caracas)
Number of items included	850	108	58	54	62	50	58	65
1939: August	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
December	105.6	118.3	108.0	94.6	101.8	97.4	110.0	95.2
1940: August	103.2	119.3	112.9	87.0	95.4	98.7	116.9	96.7
December	106.7	120.4	113.1	85.1	95.4	96.7	120.1	95.5
1941: June	116.1	134.9	125.0	84.5	103.2	104.8	131.1	(1)
December	124.8	164.9	155.3	85.8	113.4	109.0	152.5	101.1
1942: June	131.5	183.2	176.7	96.6	130.1	114.9	170.9	112.8
December	134.7	187.1	191.4	104.3	158.9	120.3	180.7	122.4
1943: June	138.4	198.6	198.6	113.7	177.6	143.7	198.9	125.7
December	137.6	198.1	194.6	123.6	167.5	155.5	203.6	124.5
1944: June	139.1	206.7	199.0	148.1	176.6	181.6	202.0	134.2
December	139.6	209.8	212.5	148.9	186.7	184.3	206.2	126.5
1945: January	139.9	210.5	209.1	157.5	192.5	180.6	209.8	127.5
February	140.3	211.1	209.3	159.1	195.4	178.6	210.5	127.9
March	140.4	211.7	210.8	166.5	197.9	183.0	211.0	128.2
April	140.9	212.3	211.8	174.9	209.7	186.5	213.5	132.8
May	141.3	211.9	212.7	174.8	190.1	187.9	212.5	132.7
June	141.5	211.7	215.0	171.1	191.5	187.6	213.3	134.5
July	141.2	212.0	215.6	164.8	197.3	193.6	213.9	133.0
August	140.9	210.5	217.9	161.9	194.5	192.8	215.4	132.5
September	140.3	211.2	218.8	162.0	188.4	196.5	212.3	132.8
October	141.2	209.2	221.0	156.5	185.5	198.8	211.2	133.1
November	142.4	209.8	222.5	161.3	181.3	203.7	212.3	131.4
December	142.8	212.4	221.1	157.9	183.1	205.4	212.6	126.3
1946: January	142.8	214.7	221.4	161.9	184.6	204.5	213.5	125.6
February	143.6	216.4	222.3	164.9	183.2	204.4	215.7	124.8
March	145.2	222.4	224.7	172.3	183.4	208.3	216.2	125.8
April	146.9	221.8	229.4	170.7	179.4	212.5	217.9	----------
May	148.0	229.1	235.3	173.0	183.3	213.8	222.7	----------
June	150.5	232.5	251.1	171.1	191.1	218.7	223.7	----------
July	166.3	229.8	242.3	172.2	195.9	220.6	226.0	----------
August	172.1	228.5	260.6	179.2	194.1	226.6	----------	----------
September	165.3	232.9	268.9	181.6	196.3	231.4	----------	----------
October	178.8	----------	----------	----------	200.9	235.9	----------	----------
November	186.1	----------	----------	----------	----------	239.7	----------	----------

[1] Not available.

TABLE 5.—*Indexes of wholesale prices in countries of the British Commonwealth, August 1939–November 1946*

[August 1939=100]

Year and month	United Kingdom	Australia	Canada	India (food only)	New Zealand	Palestine	Union of South Africa
Number of items included	200	[1]	508	11	106	50	250
1939: August	100.0	100.0	100.0	[2] 100.0	100.0	100.0	[3] 100.0
December	123.2	106.1	113.0	115.6	102.9	124.6	107.9
1940: August	142.8	115.4	114.4	103.9	113.0	135.2	113.4
December	151.5	117.9	116.5	108.8	117.0	155.6	117.5
1941: June	155.4	117.2	125.0	114.2	121.0	178.7	121.7
December	158.9	124.0	129.5	132.1	127.0	227.6	131.3
1942: June	162.7	138.6	132.5	158.9	133.2	246.9	138.9
December	164.4	139.9	134.2	195.6	136.3	304.6	148.6
1943: June	166.3	143.2	137.6	299.5	141.0	338.1	150.9
December	166.6	141.7	141.8	243.9	144.4	342.7	156.5
1944: June	169.3	143.6	141.8	232.1	144.4	333.4	156.5
December	170.4	142.6	141.8	231.4	145.5	353.9	157.3
1945: January	170.4	142.4	142.3	233.5	144.9	355.2	158.1
February	170.4	143.2	142.5	231.3	145.8	353.8	157.5
March	171.0	143.7	142.6	234.9	145.5	349.9	157.8
April	170.9	144.8	142.9	233.7	146.6	353.0	158.2
May	171.7	143.9	143.3	234.0	145.8	345.9	159.0
June	173.4	144.6	143.8	234.2	146.0	331.7	160.0
July	174.1	144.6	144.7	236.7	146.4	326.7	160.9
August	174.1	144.7	143.8	239.4	146.8	338.1	161.0
September	173.1	144.4	142.9	238.2	146.9	347.3	161.0
October	172.9	144.0	143.3	235.9	147.0	358.7	160.9
November	172.9	143.2	143.7	236.5	148.1	362.0	160.6
December	172.8	142.7	143.7	238.8	148.8	360.7	159.3
1946: January	175.3	143.1	144.7	240.5	147.9	361.6	160.0
February	175.1	143.1	145.5	243.0	148.1	360.2	160.2
March	175.4	144.2	146.1	244.8	146.5	355.9	159.6
April	176.0	144.2	149.6	244.6	148.6	359.2	159.4
May	176.6	144.2	150.2	242.6	148.8	356.4	163.0
June	176.8	143.9	150.9	245.5	148.5	349.2	164.6
July	179.9	143.6	151.5	248.2	148.3	357.3	164.6
August	180.2	142.1	151.0	252.4	149.0	367.0	165.3
September	180.8	142.6	150.9	----	----	----	165.9
October	181.0	----	----	----	----	----	----
November	182.5	----	----	----	----	----	----

[1] Not available.
[2] Last week of August 1939.
[3] July 1939.

TABLE 6.—*Indexes of wholesale prices in countries of Europe and the Middle East, August 1939–November 1946*

[August 1939=100]

Year and month	Denmark	France (Paris)	Norway	Sweden	Switzerland	Egypt	Iran (Teheran)
Number of items included	161	135	(1)	(1)	78	176	226
1939: August	100.0	100.0	100.0	100.0	100.0	100.0	100.0
December	129.0	118.0	118.2	118.9	116.5	124.0	110.0
1940: August	153.0	137.0	138.2	131.5	135.6	133.0	107.7
December	172.0	149.0	149.2	144.1	152.5	143.0	122.5
1941: June	182.0	169.0	168.1	155.9	171.9	161.0	141.5
December	180.0	182.0	172.8	161.3	185.1	184.0	177.6
1942: June	192.0	199.0	175.1	169.4	194.9	209.0	240.4
December	194.0	212.0	177.3	175.7	200.2	254.0	370.7
1943: June	193.0	230.0	178.0	177.5	203.1	273.0	422.0
December	194.0	244.0	178.4	175.7	204.7	297.0	497.0
1944: June	196.0	263.0	180.0	177.5	207.9	317.0	514.0
December	197.0	271.0	180.4	175.7	206.0	342.0	498.0
1945: January	197.0	272.0	180.5	175.7	205.6	344.0	514.0
February	197.0	280.0	180.5	175.7	205.6	344.0	487.0
March	198.0	284.0	180.6	176.1	205.6	343.0	463.0
April	197.0	321.0	181.0	176.6	205.9	341.0	460.0
May	197.0	359.0	181.1	176.6	206.0	338.0	469.0
June	192.0	368.0	181.5	177.5	206.3	335.0	469.0
July	191.0	370.0	180.7	176.6	206.7	338.0	456.0
August	190.0	385.0	181.3	174.8	207.5	340.0	456.0
September	188.0	421.0	182.9	172.1	206.7	343.0	444.0
October	186.0	438.0	180.1	172.1	204.4	348.0	442.0
November	184.0	453.0	180.6	172.1	203.2	348.0	475.0
December	184.0	460.0	168.7	171.2	199.3	347.0	504.0
1946: January	184.0	470.0	169.2	166.7	200.1	349.0	495.0
February	182.0	478.0	169.5	166.7	197.7	347.0	492.0
March	184.0	537.0	167.9	166.7	199.1	343.0	466.0
April	185.0	548.0	169.1	166.7	198.0	340.0	433.0
May	184.0	612.0	172.6	166.7	198.5	332.0	409.0
June	185.0	592.0	171.4	167.6	198.4	330.0	402.0
July	186.0	560.0	173.0	167.6	199.2	332.0	413.0
August	193.0	684.0	172.7	166.7	200.4	----------	447.0
September	194.0	714.0	----------	165.8	198.3	----------	475.0
October	199.0	796,0	----------	----------	202.0	----------	----------
November	200.0	----------	----------	----------	----------	----------	----------

[1] Not available.

Economic Policy

First Report of the Council of Economic Advisers [1]

THE Council of Economic Advisers—established in the Executive Office of the President by the Employment Act of 1946 [2]—expressed the view in the first annual report to the President that "the outlook for production and jobs is that it should be more than ordinarily favorable for a period of some years ahead." The report concluded:

"In spite of certain conditions that might make for a dip in 1947, we believe that courageous and sensible action by those responsible for the administration of private business relations (including labor unions) can at least hold such a recession to moderate proportions if not avert it. Thereafter, it would seem that broad basic conditions suggest that it will be easy to have some years of high production, employment, and purchasing power without the display of any extraordinary economic statesmanship by leaders of industry, labor, farming, and finance. In those years, however, we should not be satisfied with a level of production and conditions of use which fail to produce favorable results for all sections of the country and all segments of the population. In those years, also, if foresight is not keen and action vigorous, the stage will be set for serious unemployment, underproduction, and want in the years that follow. It is our belief, however, that enough time is afforded in which wise policy and action on the part of labor, of management, of agriculture, and of finance, with a very carefully considered complementary role by Government, will not only raise the national prosperity to new high levels but will maintain those levels with a degree of stability which has not characterized the earlier exploratory and speculative decades of our industrial life. It is toward such a system of continuous study and collaborative guidance of the Nation's business on a basis of competitive private enterprise and economic democracy that the Employment Act of 1946 is directed."

Many conditions are favorable to great prosperity in 1947, the Council states. The Nation was not devastated by war. The existing

[1] First Annual Report to the President. By Council of Economic Advisers. Washington, December 1946.

[2] Public, 304, 79th Congress. For a summary of the provisions of the Employment Act of 1946 *see* Monthly Labor Review, April 1946 (p. 586).

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plant, labor force, and technology exceed anything known in the country's past, and funds are more than adequate for full use of the physical resources. Postponed demand and purchasing power are also potential sources of great activity. Yet, there is a possiblility of such mishandling of economic affairs that 1947 might be a year of curtailed production, irregular employment, and unsatisfactory purchasing power.

Mutual and workable adjustment of wage, price, cost, and profit relations by the voluntary bargaining of the parties involved will primarily determine the outlook for production and jobs in 1947. Legislative changes in business institutions will be minor in determining developments; either the statesmanship or the obstinacy of the men, particularly the leaders, who are active parties in business operation, will be the chief factor.

In the Council's opinion, the Government should not in 1947 undertake large-scale public works or subsidies to quicken employment or stimulate production. Management, labor, farmers, and financiers should deal with the impediments to prosperity in the near future. The Government must continue to bid against employers for labor to furnish facilities needed to aid veterans, to protect civilian health, and to educate the oncoming generation. However, the conflicting factor thus injected into the general economic situation cannot be ignored. Other public expenditures have been curtailed so far as possible, both to avoid making a contribution to inflation and to insure that more will be obtained for each dollar spent at a later time.

A warning was given that plans should be made to use the country's productive resources after the pent-up demand for cars, houses, refrigerators, etc., is met, and the need for such goods is on a replacement basis. The real magnitude of the Nation's productive power must be recognized, and it should be utilized to produce for all the population the things that only the more favored had in the past.

Wage and Hour Statistics

Wage Structure of the Cigar Manufacturing Industry, January 1946[1]

STRAIGHT-TIME hourly earnings of workers in the cigar industry averaged 73 cents in January 1946. Men earned 85 cents an hour; women, who accounted for over three-fourths of the total labor force, were paid 69 cents. Twenty-nine percent of the men and 8 percent of the women averaged $1.00 or more hourly.

The Middle Atlantic and Southeast States had over-all plant hourly averages of 73 and 75 cents, respectively. These regions, together, included 70 percent of the establishments having 8 or more employees and over three-fourths of the workers. The Pacific Coast, as in most industries, tended to show the highest hourly earnings.

Workers in union establishments and in the larger establishments and communities tended to earn more than others. The pay of those making long-filler cigars was usually greater than of those making short-fillers.

Paid vacations for plant workers were granted in half of the establishments and nonproduction bonuses were paid in one-fifth of the plants studied.[2]

Production Methods and the Labor Force

The productive capacity of the industry is concentrated to a great extent in plants utilizing cigar machines. However, hand methods of making cigars are still used in a large number of the smaller shops. In addition, many establishments producing short-filler cigars employ a combination of machine and hand methods in the cigar-making process. In machine plants, the proportion of the labor force engaged in the cigar-making operation was much smaller than in the plant group using hand methods only.

Women workers accounted for more than three-fourths of the total labor force in the cigar industry in January 1946. The proportion of

[1] Prepared by Kermit B. Mohn from a field survey made under the direction of the Bureau's Regional Wage Analysts.

[2] The study upon which this article is based was limited to establishments manufacturing cigars and employing at least 8 workers. Such plants were estimated as numbering 356, and as employing almost 45,000 workers in January 1946; 198 of the establishments having over 30,000 of the workers were included in this study. More detailed information on wage structure in the cigar industry will be available in bulletin form.

women employed in the machine plants was considerably higher than in shops producing cigars by hand methods. All workers at the cigar-making machines, in both long-filler and short-filler cigar production by straight machine methods, were women.

Less than half of the establishments studied had union agreements covering a majority of their workers. Somewhat more than half of the workers covered by this study were employed in these union plants. All establishments studied in New England were unionized. At the other extreme, only 1 of 7 plants (18 percent of the workers) in the Southwest had an agreement. The most important regions—Middle Atlantic and Southeast—had collective bargaining in 32 and 51 percent of their establishments (28 and 69 percent of the workers), respectively. The oldest union, and still the leading one insofar as number of agreements are concerned, is the Cigar Makers International Union of America (AFL). This union has practically all the agreements in New England, York (Pa.), Tampa (Fla.), and Los Angeles (Calif.). The Food, Tobacco, Agricultural and Allied Workers Union of America (CIO) has numerous agreements in New York City and a smaller number in Philadelphia and the Great Lakes region. A few other agreements are scattered among other unions.

Wage Structure

AVERAGE HOURLY EARNINGS BY REGION AND SEX

Plant workers in cigar factories throughout the country averaged 73 cents an hour on a straight-time basis in January 1946. Men had average hourly earnings of 85 cents and women 69 cents (table 1). About 11 percent of all workers had hourly earnings of less than 50 cents, while more than 13 percent averaged $1.00 or more. Among the men workers, over 5 percent earned below 50 cents, but almost 29 percent were included in the $1.00-or-more group. For women the proportions were about 13 and 8 percent, respectively.

The two regions having the greatest concentration of the industry—Middle Atlantic and Southeast—had over-all plant averages of 73 and 75 cents, respectively. Men in the former region earned 82 cents compared with 87 cents in the latter; for women the corresponding figures were 71 and 69 cents. The over-all plant average in the Pacific region ($1.02 and highest in the country) was almost double that of the Southwest (52 cents).

The significance of regional over-all differences is obscured because of the variations in occupational structure accompanying dissimilar manufacturing methods. Thus, only a fifth of all men plant workers in the Middle Atlantic region were engaged in "hand" occupations (bunchmaking, rolling, or whole cigar making), while in the Southeast over 55 percent were similarly employed. In contrast to the

over-all averages, those for individual occupations (table 2) show that the Middle Atlantic led the Southeast in 11 of 13 men's jobs with one other being equal, and in 8 of 10 jobs for women. For those occupations affording a Middle Atlantic–Southeast comparison, men workers in the former region averaged an estimated 10 percent more pay on the basis of uniform occupational structures. Among the women, the Middle Atlantic advantage amounted to about 3 percent.

TABLE 1.—*Percentage distribution of all plant workers in cigar-manufacturing establishments by straight-time average hourly earnings [1] and region,[2] January 1946*

Average hourly earnings [1]	United States	New England	Middle Atlantic	Border States	Southeast	Great Lakes	Southwest	Pacific
Under 30 cents	0.5	----------	(3)	----------	(3)	0.1	15.1	----------
30.0–34.9 cents	.4	----------	(3)	----------	0.3	.1	9.8	----------
35.0–39.9 cents	.2	0.4	(3)	0.1	.1	.2	3.4	----------
40.0–44.9 cents	5.9	.8	1.0	2.1	12.8	1.5	3.5	----------
45.0–49.9 cents	4.0	2.0	1.6	8.8	5.1	2.8	15.5	0.1
50.0–54.9 cents	9.9	9.9	8.9	20.6	9.5	8.2	11.4	.2
55.0–59.9 cents	10.4	9.0	10.6	18.8	8.8	14.3	11.7	.4
60.0–64.9 cents	9.5	9.7	8.7	22.3	8.7	10.4	6.2	3.0
65.0–69.9 cents	10.1	7.6	14.4	10.4	6.6	12.7	5.2	3.9
70.0–74.9 cents	12.2	9.6	21.4	5.2	5.0	14.2	4.5	5.2
75.0–79.9 cents	8.2	11.7	11.7	3.6	5.0	13.0	4.0	8.7
80.0–84.9 cents	5.2	10.5	4.8	2.2	5.7	5.0	1.9	9.4
85.0–89.9 cents	4.2	6.4	4.6	1.2	4.1	4.0	2.1	6.6
90.0–94.9 cents	3.4	4.9	2.7	1.2	4.2	3.1	1.6	11.8
95.0–99.9 cents	2.8	3.0	1.5	.3	4.6	1.9	1.2	4.6
100.0–104.9 cents	2.7	1.9	2.0	.4	3.8	2.2	.9	5.0
105.0–109.9 cents	2.2	2.5	1.0	.3	3.7	1.7	.4	9.1
110.0–114.9 cents	1.7	1.2	1.1	1.2	2.4	1.3	.4	4.6
115.0–119.9 cents	1.1	1.8	.6	.2	1.7	1.5	.1	1.5
120.0–124.9 cents	1.4	1.1	.8	.6	2.4	.3	.4	3.1
125.0–129.9 cents	.9	.5	.6	.1	1.3	.2	.3	3.7
130.0–134.9 cents	.7	.5	.4	.3	1.0	.2	.1	3.5
135.0–139.9 cents	.6	3.7	.4	.1	.5	----------	.1	4.4
140.0–144.9 cents	.5	.2	.3	----------	.7	.1	----------	4.4
145.0–149.9 cents	.3	----------	.2	(3)	.5	.2	----------	1.3
150.0–159.9 cents	.4	.3	.4	----------	.5	.3	.1	4.0
160.0–169.9 cents	.3	.3	.1	(3)	.5	.1	----------	1.2
170.0 cents and over	.3	.5	.2	----------	.5	.4	.1	.3
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of workers	44,823	1,198	17,722	2,722	18,524	2,575	1,402	680
Average hourly earnings, all workers	$0.73	$0.78	$0.73	$0.62	$0.75	$0.72	$0.52	$1.02
Men	.85	.89	.82	.73	.87	.84	.74	1.06
Women	.69	.70	.71	.59	.69	.69	.51	1.01

[1] Excludes premium pay for overtime and night work.
[2] The regions used in this study are as follows: New England—Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, and Vermont; Middle Atlantic—New Jersey, New York, and Pennsylvania; Border States—Delaware, District of Columbia, Kentucky, Maryland, Virginia, and West Virginia; Southeast—Alabama, Florida, Georgia, Mississippi, North Carolina, South Carolina, and Tenneessee; Great Lakes—Illinois, Indiana, Michigan, Minnesota, Ohio, and Wisconsin; Southwest—Arkansas, Louisiana, Oklahoma, and Texas; and Pacific—California, Nevada, Oregon, and Washington.
[3] Less than one-half of 1 percent.

Although men's over-all earnings exceeded women's by a substantial margin, on an occupational basis this condition existed in only one of the three processing jobs (hand bunchmaking) for which comparisons could be made. Women had slight advantages among the hand cigar makers and hand rollers. In the Middle Atlantic region, men had higher averages in all three of the comparable processing occupations, and in the Southeast in one of the two jobs for which comparisons could be made. In the three nonprocessing occupations—foremen,

janitors, and stock clerks—men's earnings exceeded women's in both regions and in the country as a whole.

AREA DIFFERENCES IN EARNINGS

Tampa led all other cities in cigar-manufacturing employment; Philadelphia ranked second. Men in the former city earned 90 cents an hour compared with 81 cents in the latter. Tampa women's earnings, averaging 82 cents, exceeded those of Philadelphia women by 11 cents. These rather unusual differences reflected the contrasts in occupational structure in the two cities. Cigar making in Tampa is still done by hand primarily or by a combination of hand and machine methods. Conversely, in Philadelphia, cigars are machine-made to a very large extent. Thus, the men's average in Tampa is, for all practical purposes, the combined average for hand bunchmakers ($1.00) and hand rollers (82 cents)—jobs which had practically no representation among men in Philadelphia. Similarly, the over-all average for women in Tampa was influenced to a great extent by the earnings of hand rollers (88 cents) who constituted almost half of the women in the labor force; in Philadelphia, this occupation accounted for less than 4 percent. In contrast, Philadelphia had 10 times as many long-filler machine wrapper layers as Tampa. This is a comparatively less skilled occupation. Although these occupational differences had a considerable effect on the over-all earnings of Tampa women, they were not solely responsible for the differential over women in Philadelphia, since the averages in 5 of the 7 comparable jobs were higher in the former city.

New York City exceeded all of the other cities insofar as over-all earnings were concerned but employed fewer workers than Tampa or Philadelphia. Here again, hand methods of manufacturing affected the wage levels to a considerable degree.

FACTORS IN VARIATION OF OCCUPATIONAL EARNINGS

Earnings tend to be affected by a number of factors so interrelated that it is impossible to isolate the effect of any single element completely. Thus, some of the differences in earnings apparently related to any one of the factors shown in the following paragraphs may have been affected by others.

Unionization.—Union workers averaged about 14 percent more an hour than those in nonunion establishments in the country as a whole; they had the advantage in two-thirds of the jobs for which comparisons could be made. However, the significance of these apparently favorable differentials becomes obscure when the union-nonunion relationships are analyzed in the various regions. In the Southeast, the union workers generally had the advantage; there was no clear-cut margin in the Middle Atlantic. Absolute comparisons could not be made in the

New England, Pacific, and Southwest regions because all plants in New England were unionized as were 10 of 12 in the Pacific while, at the other extreme, only 1 of 7 in the Southwest had a union agreement. However, the influence of the higher-paid union workers in the New England and Pacific regions and the low-paid nonunion workers in the Southwest on the respective over-all national averages must be considered in these comparisons.

Size of establishment and community.—Although comparisons are made difficult by the variations in manufacturing methods and accompanying occupational structure, it was possible to trace a mild tendency for average earnings (among those establishments having more than 20 workers) to increase with the size of the plant. The relationship was reversed between the smallest plants (8 to 20 workers) and the next group (21 to 50), possibly because the very small plants often manufacture a more expensive product. Similar relationships prevailed in both the Middle Atlantic and Southeast regions.

For the industry as a whole, hourly earnings tended to rise directly with the size of the community in which the establishments were located. A differential of almost 7 percent in favor of workers in cities of over 100,000 population as against those in cities with between 25,000 and 100,000 resulted from direct advantages in 13 of 19 comparable jobs. The average difference between the medium-sized cities and the smallest (under 25,000)— caused by favorable margins in 11 of 12 jobs affording comparison—was about 20 percent. The relation between the earnings in the large and medium cities in the Middle Atlantic region was almost the same as that described above, but a contrary tendency existed between the medium and small cities. Unfortunately, there was an insufficient number of plants in each of the three size groups in the Southeast to permit the inclusion of separate data for this region.

Type of filler.—Workers in long-filler plants generally averaged more pay per hour than those in plants making short-filler cigars.[3] For the industry as a whole, the long-filler advantage existed in 17 of 20 comparable occupations. This over-all advantage amounted to more than 9 percent, after making allowances for differences in the occupational structure.

The situation was somewhat similar on an occupational basis in the two regions in which comparisons were made. In the Middle Atlantic

[3] Cigars are of two main types, long filler and short filler. In the former, the filler or body of the cigar is composed of long pieces of tobacco leaf formed into an even "bunch"; the short filler is composed of shredded leaves or tobacco scraps. Generally, the long-filler cigar is considered of superior quality and is more expensive to the smoker.

For this study, all cigar plants were classified as manufacturers of long- or short-filler cigars according to the predominance of the type manufactured. Therefore, it must be understood that the various groups of workers did not necessarily work entirely on one type of cigar to the exclusion of the other, since in those plants making both types, all workers were classified only on the basis of the predominant product.

region 13 of 18 and in the Southeast 14 of 17 occupations had higher averages in the long-filler group. On the basis of average earnings, however, with the same occupational structure for both types of filler, there was no difference in the Middle Atlantic States. The Southeast long-filler workers had an over-all differential of over 13 percent.

MINIMUM ENTRANCE AND JOB RATES

Nationally, entrance and job rates [4] for men and women had their primary concentration at the legal minimum of 40 cents; a secondary concentration was at the 50-cent level. Either one or the other of these rates had been established in about half of the plants for both men and women. Other entrance rates ranged from less than 40 cents (2 for men, 3 for women) to more than 75 but less than 80 cents (1 each for men and women). Job rates of less than 40 cents were also in existence (2 each for men and women). On the other hand, 3 plants had job rates of 90 cents or more for men and women.

TABLE 2.—*Average straight-time hourly earnings [1] for selected occupations in cigar establishments, by Region, January 1946*

Occupation, grade, and sex	United States		New England		Middle Atlantic		Border States	
	Number of workers	Average hourly earnings	Number of workers	Average hourly earnings	Number of workers	Average hourly earnings	Number of workers	Average hourly earnings
Men								
Adjusters, machine, group 1	241	$1.24	15	$1.28	155	$1.30	28	$1.06
Adjusters, machine, group 2	140	.88	1	(3)	76	1.01	14	.81
Bunchmakers, hand	1,665	1.00			146	1.04		
Cigar makers, whole work, hand	830	.88	277	.86	332	.94	33	.67
Janitors	135	.56	2	(3)	39	.64	18	.57
Machinists, maintenance	69	1.17	2	(3)	39	1.17	12	1.26
Maintenance men, general utility	51	.96			23	.93	5	1.35
Mechanics, maintenance	234	1.05	7	.98	22	1.39	1	(3)
Rollers, hand	1,966	.82	6	(3)	113	.86	11	.55
Stock clerks	190	.70	5	(3)	43	.66	1	(3)
Truckers, hand	447	.56	13	.71	125	.62	30	.55
Watchmen	191	.60	5	(3)	101	.61	15	.65
Working foremen, processing departments	201	.95	18	1.11	85	.90	9	(3)
Women								
Bunchmakers, hand	1,129	.85	6	(3)	382	.84	17	.70
Bunchmakers, shredded-filler machine	3,184	.67	73	.78	1,288	.69	100	.59
Cigar makers, whole work, hand	645	.91	2	(3)	513	.92	12	.82
Examiners, final, cigar and box	727	.76	11	.74	495	.79	85	.63
Janitors	144	.53			78	.57	17	.52
Rollers, hand	5,828	.83	34	.86	1,073	.79	28	.69
Stock clerks	80	.62			35	.65	7	(3)
Strippers, hand	1,688	.60	60	.61	383	.63	119	.66
Strippers, machine	3,756	.62	111	.61	1,857	.65	261	.57
Working foremen, processing departments	206	.80	8	(3)	129	.84	3	(3)
Wrapper layers, long-filler cigar machine	2,276	.70	33	.80	1,532	.72	311	.63

See footnotes at end of table.

[4] These rates do not, in all probability, refer to the same occupations in all plants, and within any plant the two rates (entrance and job) frequently apply to different occupations. With these limitations the data are believed to reflect the minimum-wage standards at the time of the survey.

TABLE 2.—*Average straight-time hourly earnings* [1] *for selected occupations in cigar establishments, by region, January 1946*—Continued

Occupation, grade, and sex	Southeast		Great Lakes		Southwest		Pacific	
	Number of workers	Average hourly earnings	Number of workers	Average hourly earnings	Number of workers	Average hourly earnings	Number of workers	Average hourly earnings
Men								
Adjusters, machine, group 1	12	$0.79	28	$1.20	3	(2)		
Adjusters, machine, group 2	40	.64	9	(2)				
Bunchmakers, hand	1,483	1.00	7	(2)	5	(2)	24	$1.20
Cigar makers, whole work, hand	76	.79	92	.92	5	(2)	15	.95
Janitors	67	.49	4	(2)			5	(2)
Machinists, maintenance	16	1.14						
Maintenance men, general utility	13	.88	3	(2)	4	(2)	3	(2)
Mechanics, maintenance	195	1.00	5	1.15	1	(2)	3	(2)
Rollers, hand	1,756	.82	63	.88	4	(2)	13	1.00
Stock clerks	127	.70	8	(2)	2	(2)	4	(2)
Truckers, hand	274	.52	1	(2)			4	(2)
Watchmen	53	.55	13	.60	2	(2)	2	(2)
Working foremen, processing departments	67	.90	15	1.09			7	(2)
Women								
Bunchmakers, hand	386	.93	151	.76	143	$0.62	44	1.34
Bunchmakers, shredded-filler machine	1,545	.66	125	.66	16	.61	37	1.11
Cigar makers, whole work, hand	4	(2)	12	1.16	3	(2)	99	.81
Examiners, final, cigar and box	74	.69	58	.79			4	(2)
Janitors	38	.44	8	(2)	2	(2)	1	(2)
Rollers, hand	3,776	.85	415	.75	373	.62	129	1.24
Stock clerks	22	.53	9	(2)			7	(2)
Strippers, hand	943	.59	52	.51	110	.49	21	.78
Strippers, machine	1,207	.58	259	.56	20	.51	41	.86
Working foremen, processing departments	36	.69	16	.73			14	.82
Wrapper layers, long-filler cigar machine	183	.58	157	.72	29	.53	31	1.01

[1] Excludes premium pay for overtime and night work.
[2] Insufficient number of workers to justify presentation of an average.

These same concentrations existed generally in the Middle Atlantic and Great Lakes regions. In the Southeast, most entrance and job rates were 40 cents, with very few above that figure.

Wage and Related Practices

Most employees in the cigar industry, including practically all those in processing occupations, are piece workers. Nationally, 73 percent of the wage earners were paid on this basis in January 1946. The range, by region, was from 58 percent in the Border States to 82 percent in the Southeast. Only 3 of the 198 establishments had no system of incentive payments in operation.

A workweek of 40 hours for both men and women was predominant in the industry. For men, it existed in over 61 percent and for women in almost 65 percent of the establishments. The next most common workweek for both sexes was at least 45 but less than 48 hours, and the 48-hour week ranked third. A scheduled workweek of more than

48 hours was reported by only 11 establishments for men, and by 8 for women.

Extra shift work was very uncommon in the cigar industry. Of the 198 plants, 18 reported a second shift; none had a third shift. Only 7 percent of the workers were employed on the second shift and in most cases received no premium compensation for this work.

Over half of the establishments granted vacations with pay to plant workers after 1 year of service; three-fourths of those having office workers reported the same feature for that group. The vacation period for plant workers was 1 week in more than 9 out of 10 cases. For office workers, the vacation was of 1 week's duration in slightly more than half of the establishments and 2 weeks in all except one of the others. Vacations with pay were most prevalent, proportionately, on the Pacific Coast and least prevalent in the Southwest.

Bonuses unrelated to production were paid to plant workers in over one-fifth and to office workers in about two-fifths of the establishments. In practically all cases, this extra remuneration was a Christmas bonus.

Only 9 establishments in the Middle Atlantic region and 2 on the Pacific Coast (of the 198 studied) reported provisions for paid sick leave for plant employees. All plants in the former region granted 6 days of paid leave; those in the latter awarded 5 days or less. Of those establishments having office workers, 1 in each of the Middle Atlantic and Pacific regions provided sick leave for such employees.

Formal provisions for a paid lunch period of more than 20 minutes were practically unheard of in the industry. Only 2 of the 198 establishments, both on the Pacific Coast, reported this feature.

Slightly more than a fifth of the establishments reported the existence of an insurance and/or pension plan for their plant workers. Almost a fourth of those plants employing office workers had such benefits. Practically all of these plants were located in the Middle Atlantic region. The most frequently reported plan provided for life insurance, and health insurance ranked second.

Union Wages and Hours in the Building Trades, July 1, 1946[1]

HOURLY union wage rates for building-trades journeymen averaged $1.79 an hour on July 1, 1946, and for helpers and laborers $1.14. Bricklayers showed the highest average ($2.06 an hour). Between 1945 and 1946 over 95 percent of the workers received a wage-rate increase of at least 10 percent. Among the 75 cities studied, Charlotte, N. C., had the greatest average increase in journeyman rates (17 percent), and Charleston, S. C., had the most substantial advance for helpers and laborers (42 percent).

Straight-time weekly hours, averaging 39.1 for journeymen and 39.5 for helpers and laborers, represented about a 1-percent reduction during the year. Approximately three-fifths of the journeymen and one-fourth of the helpers received double-time rates for overtime; about 90 percent of both groups received double pay for Sunday work.

This article is based on effective union scales (as of July 1, 1946). These are defined as the minimum wage rates or maximum schedule of hours agreed upon through collective bargaining between employers and trade unions. Rates in excess of the agreed minimum may be paid to union members because of long service, special qualifications, or for personal or other reasons. These premium rates were not used in the preparation of this report. Field representatives of the Bureau obtained 2,759 quotations of scales covering 509,331 journeymen and 117,290 helpers employed in 75 cities ranging in size from 40,000 to 1,000,000.[2]

The 1946 survey took place during the short interval when all wage and price controls were suspended by virtue of the Presidential veto of the bill extending the Price Control Act.[3] In general, the scales reported by the union officials as effective on July 1 had received prior approval of the Wage Adjustment Board for the bulding construction industry. For 64 cases in which higher rates were reported on July 1 than had been previously authorized, the subsequent restoration of controls legalized the higher rates in over 40 percent of the instances and rolled back the remainder to lower levels. Comparison of the last authorized rates with those reported on July 1 indicated that had wage controls been operative on the survey date, hourly average wage rates for journeymen and helpers would have been about 0.7 percent and 1.0 percent less, respectively. It is recog-

[1] Prepared in the Bureau's Wage Analysis Branch by Donald H. Gerrish, assisted by James P. Corkery and Herbert M. Abowitz.

[2] A forthcoming bulletin will contain additional text and tables, including a listing of the union scales in effect for each building trade in the 75 cities. Where possible this bulletin will also include rate changes between July 1, 1946, and the date of publication.

[3] H. R. 6042 (79th Cong.; 2d sess.) was vetoed June 29, 1946. This bill also provided for the extension of the Stabilization Act.

nized, however, that the 64 cases are too few to permit any adequate generalization.

Union Hourly Wage Rates

TREND OF UNION WAGE RATES [4]

The annual increase of more than 11 percent in rate of pay, shown on July 1, 1946, was the largest percentage change recorded over a single year since 1920 (table 1). Practically all this advance took place after VJ-day. During the war and the early reconversion period, the effectiveness of the Wage Adjustment Board in stabilizing wage rates for the building construction industry [5] is evidenced by the following facts: Between 1941 and 1945 hourly rates in this industry increased only 10 percent (amounting to about 14 cents an hour), in contrast with a 35-percent rise (about 18 cents an hour) for a comparable period in World War I (1916–19). From the time wage controls were adopted in July 1942 until July 1945, building hourly rates rose only slightly less than 4 percent.

TABLE 1.—*Indexes of union hourly wage rates in all building trades, 1907–46*

[1939=100]

Year	All trades	Journeymen	Helpers and laborers	Year	All trades	Journeymen	Helpers and laborers
1907	29.3	29.7	27.3	1927	91.3	91.7	86.4
1908	31.2	31.6	28.5	1928	91.9	92.4	87.3
1909	32.7	33.2	29.5	1929	93.1	93.6	88.8
1910	34.0	34.6	30.5	1930	97.0	97.5	93.3
1911	34.5	35.2	30.6	1931	97.3	97.8	92.8
1912	35.3	36.0	30.9	1932	83.1	83.6	79.2
1913	36.1	36.9	31.8	1933	80.8	81.4	75.7
1914	36.9	37.7	32.1	1934	81.4	81.8	77.9
1915	37.2	38.0	32.4	1935	82.3	82.8	78.3
1916	38.4	39.3	33.5	1936	85.3	85.5	82.9
1917	40.8	41.5	36.8	1937	91.2	91.4	90.1
1918	45.3	45.9	42.6	1938	99.3	99.3	99.2
1919	51.9	52.4	49.3	1939	100.0	100.0	100.0
1920	70.0	70.1	71.5	1940	101.6	101.4	102.0
1921	71.3	71.4	72.2	1941	105.3	105.0	106.8
1922	66.9	67.3	65.7	1942	111.9	110.9	117.5
1923	73.9	74.2	69.7	1943	112.7	111.5	118.9
1924	79.8	80.1	75.4	1944	113.6	112.4	120.3
1925	82.9	83.1	77.9	1945	116.0	114.4	125.9
1926	88.3	88.7	84.9	1946	129.3	126.8	146.3

It is difficult to compare the gains of the past year with those realized immediately after World War I, because the first war ended later in the year and the Bureau's study was then as of May 15 rather than as of July 1. However, by May 15, 1919, 6 months after the end of World War I, rates had risen about 15 percent over May 15, 1918, in comparison with an increase of over 11 percent recorded in the 11 months

[4] The Bureau has computed an index series with the year 1939 as a base for measuring changes in scales from year to year. This index series, rather than the actual average of rates in this and previous reports, should be used to determine the trend of hourly wage rates, because of changes in coverage and shifts in union membership between two periods. For the procedure used in the index, see forthcoming bulletin.

[5] A summary of the development and activities of the Board will be included in the bulletin to be issued later.

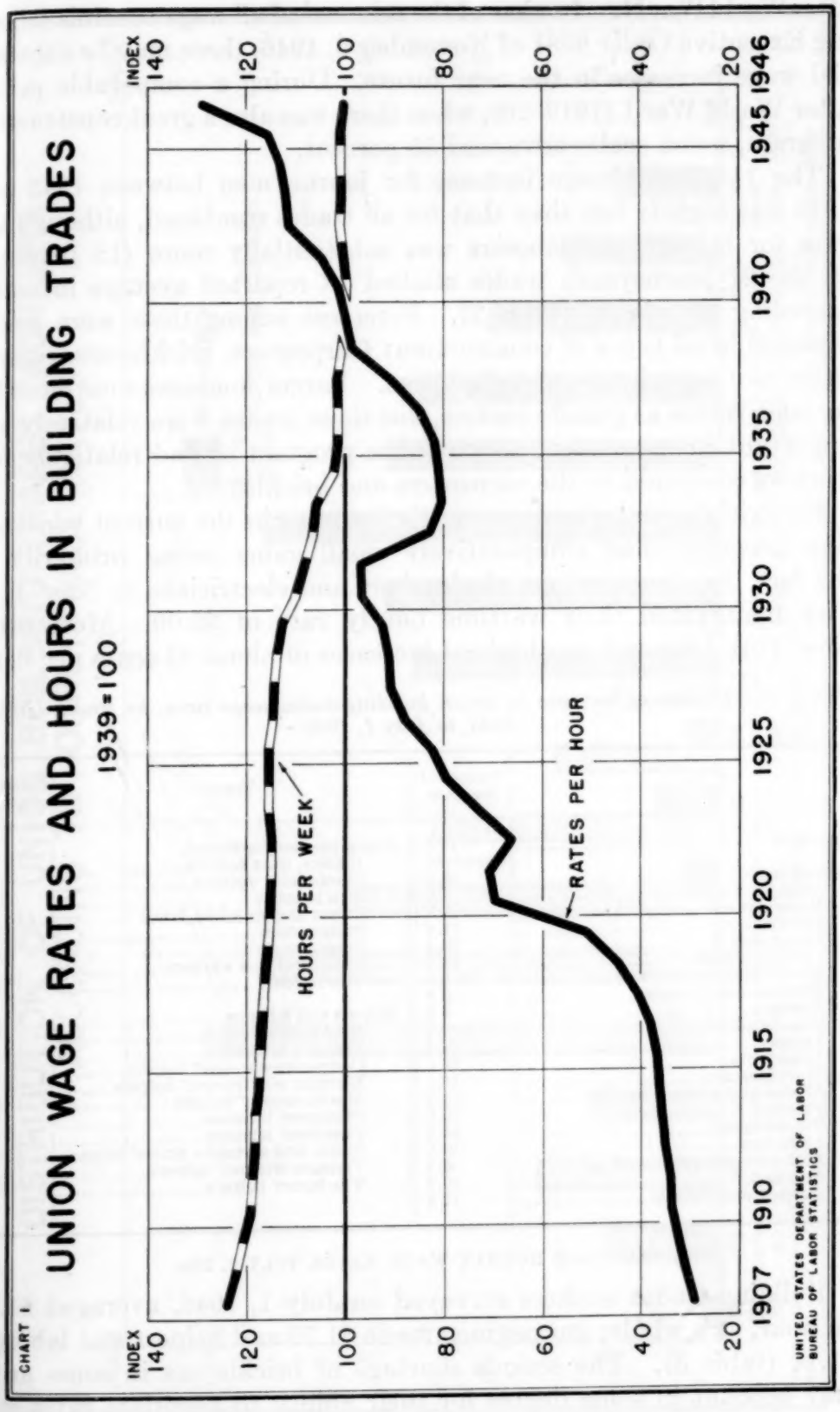


CHART I
UNION WAGE RATES AND HOURS IN BUILDING TRADES
1939=100
INDEX
140
120
100
80
60
40
20
HOURS PER WEEK
RATES PER HOUR
1907
1910
1915
1920
1925
1930
1935
1940
1945
1946
UNITED STATES DEPARTMENT OF LABOR
BUREAU OF LABOR STATISTICS

after World War II. In view of the removal of all wage controls following Executive Order 9081 of November 9, 1946, there may be substantial wage increases in the near future. During a comparable period after World War I (1919–20), when there was also a great construction program, union scales advanced 35 percent.

The 11-percent wage increase for journeymen between 1945 and 1946 was slightly less than that for all trades combined, although the gain for helpers and laborers was substantially more (16 percent). Of the 27 journeyman trades studied 18 reported average increases exceeding 10 percent (table 2). Foremost among these were trades essential in all types of construction: Carpenters, bricklayers, composition roofers, painters, and plasterers. Larger increases were recorded for such trades as granite cutters, but these trades were relatively unimportant in the current construction program or had relatively few workers compared to the carpenters and bricklayers.

Electricians and plumbers—critical groups in the current construction program—had comparatively small gains owing primarily to the fact that large unions of plumbers and electricians in New York City maintained their wartime hourly rate of $2.00. Most other New York City unions obtained increases of about 25 cents per hour.

TABLE 2.—*Percent of increase in union building-trades wage rates, by trades, July 1, 1945, to July 1, 1946*

Trade	Percent of increase	Trade	Percent of increase
All trades	11.5	Journeymen—Continued.	
		Roofers, slate and tile	8.7
Journeymen	10.8	Sheet-metal workers	12.3
Asbestos workers	9.9	Sign painters	12.6
Boilermakers	7.9	Steam and sprinkler fitters	9.1
Bricklayers	11.4	Stonecutters	13.6
Carpenters	12.4	Stonemasons	13.6
Cement finishers	12.3	Structural-iron workers	8.8
Electricians (inside wiremen)	6.9	Tile layers	13.2
Elevator constructors	6.5		
Glaziers	9.9	Helpers and laborers	16.2
Granite cutters	20.5	Bricklayers' tenders	16.3
Lathers	11.4	Building laborers	17.2
Machinists	11.5	Composition roofers' helpers	13.1
Marble setters	11.1	Elevator constructors' helpers	6.3
Mosaic and terrazzo workers	13.1	Marble setters' helpers	15.4
Painters	10.6	Plasterers' laborers	12.7
Paperhangers	11.1	Plumbers' laborers	13.9
Plasterers	10.6	Steam and sprinkler fitters' helpers	13.7
Plumbers and gas fitters	8.1	Terrazzo workers' helpers	17.4
Rodmen	10.4	Tile layers' helpers	16.2
Roofers, composition	11.4		

AVERAGE HOURLY WAGE RATES, JULY 1, 1946

Building-trades workers surveyed on July 1, 1946, averaged $1.67 an hour, as a whole; journeymen made $1.79 and helpers and laborers $1.14 (table 3). The serious shortage of bricklayers in some areas may account in some degree for their ability to negotiate rates well above a number of the other trades. Stonecutters, a trade with very little work in the current construction program, had a rate nearly as

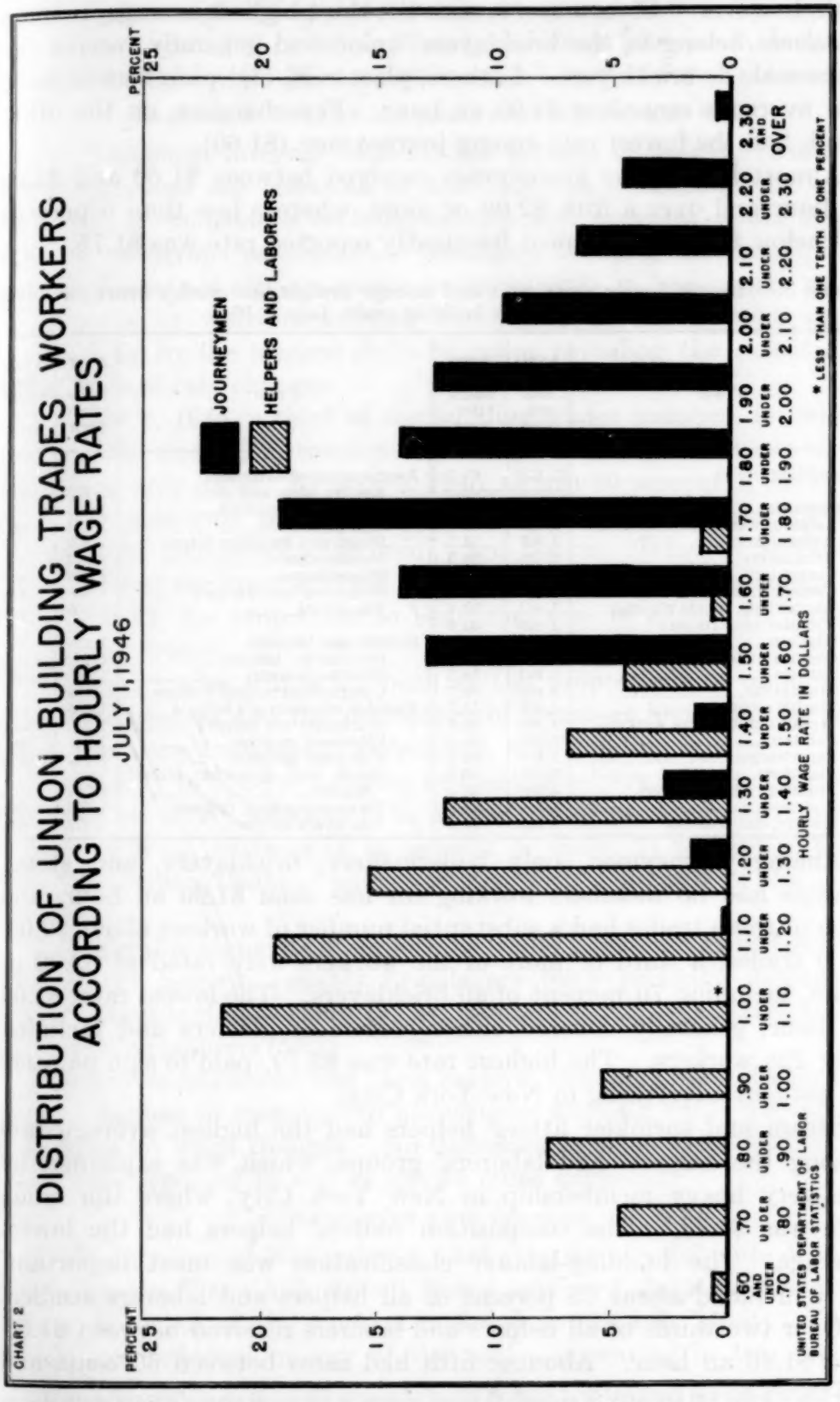


CHART 2
DISTRIBUTION OF UNION BUILDING TRADES WORKERS ACCORDING TO HOURLY WAGE RATES
JULY 1, 1946
PERCENT
25
20
15
10
5
0
JOURNEYMEN
HELPERS AND LABORERS
.60 AND UNDER .70
.70 UNDER .80
.80 UNDER .90
.90 UNDER 1.00
1.00 UNDER 1.10
1.10 UNDER 1.20
1.20 UNDER 1.30
1.30 UNDER 1.40
1.40 UNDER 1.50
1.50 UNDER 1.60
1.60 UNDER 1.70
1.70 UNDER 1.80
1.80 UNDER 1.90
1.90 UNDER 2.00
2.00 UNDER 2.10
2.10 UNDER 2.20
2.20 UNDER 2.30
2.30 AND OVER
HOURLY WAGE RATE IN DOLLARS
* LESS THAN ONE TENTH OF ONE PERCENT
UNITED STATES DEPARTMENT OF LABOR
BUREAU OF LABOR STATISTICS

high, however. Stonemasons, with the third highest average, in most instances belong to the bricklayers' union and generally receive the same scale as bricklayers. Lathers, plasterers, and plumbers likewise had averages exceeding $1.90 an hour. Paperhangers, on the other hand, had the lowest rate among journeymen ($1.60).

Almost half of the journeymen received between $1.60 and $1.90 an hour and over a fifth $2.00 or more, whereas less than 6 percent fell below $1.50. The most frequently reported rate was $1.75.

TABLE 3.—*Average hourly wage rates and average straight-time weekly hours for union members in each building trade, July 1, 1946*

Trade	Average rate per hour	Average hours per week	Trade	Average rate per hour	Average hours per week
All building trades	$1.670	39.2	Journeymen—Continued.		
			Roofers, slate and tile	$1.723	40.0
Journeymen	1.792	39.1	Sheet-metal workers	1.809	39.5
Asbestos workers	1.799	39.4	Sign painters	1.884	38.7
Boilermakers	1.867	39.2	Steam and sprinkler fitters	1.879	39.7
Bricklayers	2.058	38.3	Stonecutters	1.974	37.1
Carpenters	1.730	39.3	Stonemasons	1.964	38.8
Cement finishers	1.746	39.9	Structural-iron workers	1.888	39.9
Electricians, inside wiremen	1.853	38.4	Tile layers	1.808	40.0
Elevator constructors	1.838	40.0			
Glaziers	1.682	39.3	Helpers and laborers	1.138	39.5
Granite cutters	1.793	38.7	Bricklayers' tenders	1.242	39.0
Lathers	1.941	38.5	Building laborers	1.065	39.8
Machinists	1.800	39.7	Composition roofers' helpers	.989	39.8
Marble setters	1.823	39.7	Elevator constructor's helpers	1.285	40.0
Mosaic and terrazzo workers	1.806	38.7	Marble setters' helpers	1.283	40.0
Painters	1.705	39.0	Plasterers' laborers	1.347	39.0
Paperhangers	1.600	39.7	Plumbers' laborers	1.147	38.9
Plasterers	1.951	37.9	Steam and sprinkler fitters' helpers	1.517	37.2
Plumbers and gas fitters	1.906	38.0	Terrazzo workers' helpers	1.360	38.6
Rodmen	1.749	39.8	Tile layers' helpers	1.271	4.00
Roofers, composition	1.616	39.5			

Among journeymen, only boilermakers, bricklayers, and stonemasons had no members working for less than $1.60 an hour, and each of these trades had a substantial number of workers above $2.00. In 9 trades, a third or more of the workers were rated at $2.00 or more, including 70 percent of all bricklayers. The lowest rate, $1.00 an hour, generally covered either roofers or glaziers and included only 228 workers. The highest rate was $2.79, paid to sign painters on outdoor advertising in New York City.

Steam and sprinkler fitters' helpers had the highest average rate among the helpers' and laborers' groups, which was explained by the very heavy membership in New York City, where the union rate was $1.73.[6] The composition roofers' helpers had the lowest average. The building-laborer classification was most important, as it included about 65 percent of all helpers and laborers studied.

Over two-thirds of all helpers and laborers received between $1.00 and $1.40 an hour. About fifth had rates between 60 cents and

[6] These workers will probably be excluded in future reports, as the helper system is being eliminated by the Plumbers and Steamfitters' International Union (United Association of Journeymen Plumbers and Steamfitters of the United States and Canada, AFL).

$1.00, and an eighth received between $1.40 and $1.80. The lowest hourly rate scale (60 cents) applied to building laborers in Jackson, Miss., the highest ($1.75) to plasterers' laborers in San Francisco.

CHANGES IN UNION WAGE RATES BETWEEN 1945 AND 1946

The 12-month interval between the surveys of July 1, 1945 and 1946, witnessed the cessation of hostilities, an advance in the cost of living, a tremendous building-construction program, acute shortages in numerous commodities (including building materials), and intense union activity to secure improvements in basic wage rates. The forces at work manifested themselves in the current study particularly by the marked shifts in ratios revealing the extent and magnitude of rate changes.

On July 1, 1945, a third of the building-trades members for whom comparable quotations were received reported wage increases since the prior study date. By July 1, 1946, almost 89 percent of the comparable quotations tabulated, embracing all but 4 percent of the comparable membership, showed wage boosts. Whereas advances of 10 percent and over affected less than 6 percent of all members on July 1, 1945, the proportion so benefiting rose to almost 70 percent on July 1, 1946.

Principal trades which led both in the proportions of quotations showing increases and the percentage of members benefiting by rate raises were the bricklayers, carpenters, and building laborers.

A majority of the journeymen and of the helpers benefited by rate gains of 10 to 20 percent. The helper group predominated in the categories with increases of 20 percent or more, 34 percent of their members falling therein,[7] as constrasted with 4 percent of the journeymen.

Considerable segments of important trades registered gains between 10 and 20 percent, notably bricklayers (68.6 percent), carpenters (80.6), sheet-metal workers (73.5), painters (52.2), plasterers (53.2) and building laborers (56.7).

Elevator constructors and their helpers, plumbers, and electricians ranked highest in membership proportions working under quotations involving no wage changes. No decreases in wage rates during the year were reported in any of the 75 cities surveyed.

POSTSURVEY RATE CHANGES

From July 2 until November 9, 1946 (the termination date of wage controls), the Wage Adjustment Board approved increases benefiting almost a fourth of the workers included in the July study. These raises, not reflected in any of the tables appearing in this report,

[7] This was the result, in the main, of increases up to 37½ cents an hour to helpers in cities with low basic scales and/or high membership concentration.

averaged 15 cents an hour, and lifted the general average to $1.71 on November 9, a gain of approximately 2 percent for each of the two groups. Inclusion of these later increases would advance the index of union hourly wage rates for all workers to 132.0 on November 9 (journeymen, 129.5; helpers, 149.5). During the period from the end of the war to the end of wage controls, union building-construction wage rates advanced about 14 percent.

UNION WAGE RATES BY CITY AND REGION

As in previous years, the highest city averages [8] for journeymen were found in the New York metropolitan area (table 4). The average for the adjacent city of Newark was slightly above that for New York, which may have been caused by the higher electrician's scale in Newark, as other important trades have about the same scales in these two cities. Chicago ranked third with respect to journeymen

TABLE 4.—*Average union hourly wage rates in the building trades, by cities and population groups, July 1, 1946*

City and population group	Average hourly rate	City and population group	Average hourly rate
Journeymen		*Journeymen*—Continued	
Population group I (over 1,000,000):		Population group IV (100,000 to 250,000):	
New York, N. Y.	$2.087	Dayton, Ohio	$1.786
Chicago, Ill.	1.949	Youngstown, Ohio	1.782
Average for group I	*1.902*	Peoria, Ill.	1.769
Philadelphia, Pa.	1.849	South Bend, Ind.	1.726
Detroit, Mich.	1.825	New Haven, Conn.	1.679
Los Angeles, Calif.	1.609	Spokane, Wash.	1.676
Population group II (500,000 to 1,000,000):		Springfield, Mass.	1.670
Washington, D. C.	1.929	Rock Island (Ill.) district [1]	1.651
Pittsburgh, Pa.	1.928	Omaha, Nebr.	1.627
Buffalo, N. Y.	1.904	Des Moines, Iowa	1.619
St. Louis, Mo.	1.856	Erie, Pa.	1.616
Average for group II	*1.815*	Oklahoma City, Okla.	1.615
San Francisco, Calif.	1.797	Reading, Pa.	1.602
Cleveland, Ohio	1.784	*Average for group IV*	*1.593*
Baltimore, Md.	1.747	Worcester, Mass.	1.562
Boston, Mass.	1.743	Grand Rapids, Mich.	1.555
Milwaukee, Wis.	1.637	Salt Lake City, Utah	1.549
Population group III (250,000 to 500,000):		Scranton, Pa.	1.542
Newark, N. J.	2.138	Duluth, Minn.	1.518
Toledo, Ohio	1.823	Nashville, Tenn.	1.503
Cincinnati, Ohio	1.799	Wichita, Kans.	1.474
Kansas City, Mo.	1.783	Richmond, Va.	1.470
Seattle, Wash.	1.760	Norfolk, Va.	1.457
Rochester, N. Y.	1.755	Jacksonville, Fla.	1.436
Denver, Colo.	1.738	Tampa, Fla.	1.413
Indianapolis, Ind.	1.711	Charlotte, N. C.	1.366
Average for group III	*1.702*	Population group V (40,000 to 100,000):	
Houston, Tex.	1.696	Butte, Mont.	1.811
St. Paul, Minn.	1.694	Charleston, W. Va.	1.690
Minneapolis, Minn.	1.686	Phoenix, Ariz.	1.659
Columbus, Ohio	1.661	Mobile, Ala.	1.552
Louisville, Ky.	1.625	Madison, Wis.	1.540
Portland, Oreg.	1.615	Binghamton, N. Y.	1.535
Birmingham, Ala.	1.601	*Average for group V*	*1.572*
Memphis, Tenn.	1.593	El Paso, Tex.	1.510
Dallas, Tex.	1.559	Little Rock, Ark.	1.479
Providence, R. I.	1.554	Manchester, N. H.	1.449
San Antonio, Tex.	1.543	Portland, Maine	1.416
New Orleans, La.	1.535	Charleston, S. C.	1.409
Atlanta, Ga.	1.494	York, Pa.	1.374
		Jackson, Miss.	1.368

[1] Includes Rock Island and Moline, Ill., and Davenport, Iowa.

[8] The averages presented were weighted according to the number of members in each local union covered by the reported rates and, in many cases, may be lower than a simple average of specific rates owing to the large memberships in the less-skilled trades carrying the lower rates.

TABLE 4.—*Average union hourly wage rates in the building trades, by cities and population groups, July 1, 1946*—Continued

City and population group	Average hourly rate	City and population group	Average hourly rate
Helpers and laborers		*Helpers and laborers*—Continued	
Population group I (over 1,000,000):		Population group IV (100,000 to 250,000):	
New York, N. Y.	$1.442	Spokane, Wash.	$1.197
Chicago, Ill.	1.322	South Bend, Ind.	1.197
Average for group I	*1.245*	Richmond, Va.	1.160
Detroit, Mich.	1.201	New Haven, Conn.	1.140
Los Angeles, Calif.	1.141	Peoria, Ill.	1.133
Philadelphia, Pa.	1.036	Springfield, Mass.	1.084
Population group II (500,000 to 1,000,000):		Youngstown, Ohio	1.077
San Francisco, Calif.	1.318	Salt Lake City, Utah	1.072
Buffalo, N. Y.	1.276	Dayton, Ohio	1.069
Cleveland, Ohio	1.266	Rock Island (Ill.) district [1]	1.066
Pittsburgh, Pa.	1.255	Des Moines, Iowa	1.062
St. Louis, Mo.	1.233	Worcester, Mass.	1.053
Milwaukee, Wis.	1.227	Erie, Pa.	1.038
Average for group II	*1.207*	Duluth, Minn.	1.021
Boston, Mass.	1.183	Charlotte, N. C.	1.015
Washington, D. C.	1.073	*Average for group IV*	*1.013*
Baltimore, Md.	.986	Reading, Pa.	1.005
Population group III (250,000 to 500,000):		Grand Rapids, Mich.	.983
Newark, N. J.	1.393	Scranton, Pa.	.951
Seattle, Wash.	1.296	Wichita, Kans.	.932
Kansas City, Mo.	1.234	Oklahoma City, Okla.	.897
Denver, Colo.	1.220	Omaha, Nebr.	.838
Minneapolis, Minn.	1.183	Norfolk, Va.	.826
St. Paul, Minn.	1.174	Tampa, Fla.	.783
Portland, Oreg.	1.174	Jacksonville, Fla.	.768
Toledo, Ohio	1.155	Nashville, Tenn.	.765
Cincinnati, Ohio	1.137	Population group V (40,000 to 100,000):	
Rochester, N. Y.	1.127	Butte, Mont.	1.169
Average for group III	*1.048*	Phoenix, Ariz.	1.062
Indianapolis, Ind.	1.017	Madison, Wis.	1.056
Providence, R. I.	1.012	Portland, Maine	1.038
Columbus, Ohio	.961	Charleston, W. Va.	.951
Louisville, Ky.	.944	Manchester, N. H.	.921
Houston, Tex.	.883	*Average for group V*	*.912*
Dallas, Tex.	.870	York, Pa.	.859
New Orleans, La.	.813	Charleston, S. C.	.773
Birmingham, Ala.	.810	Little Rock, Ark.	.716
Memphis, Tenn.	.804	Mobile, Ala.	.680
Atlanta, Ga.	.792	Jackson, Miss.	.664
San Antonio, Tex.	.776	Binghamton, N. Y.	----------
		El Paso, Tex.	----------

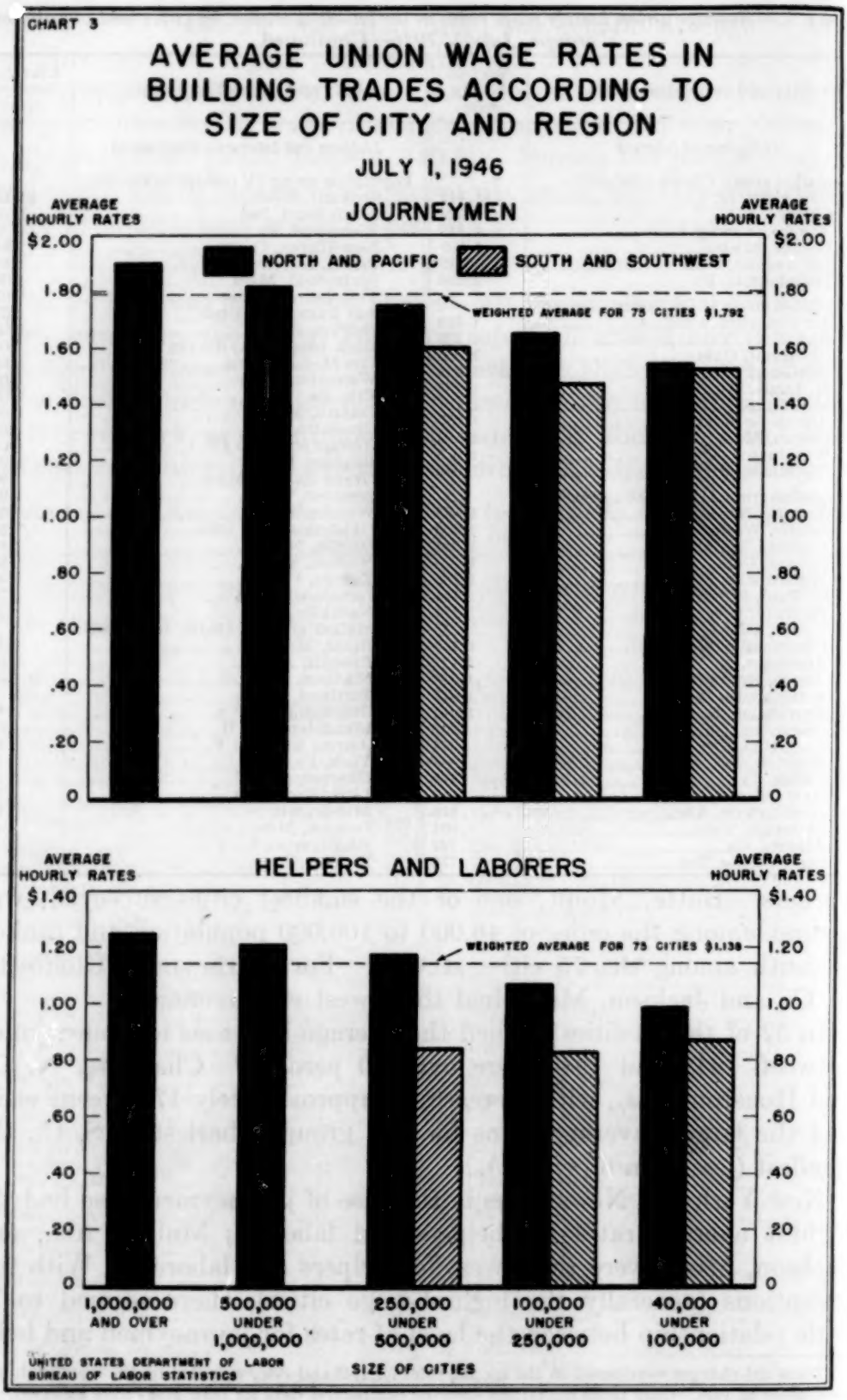
workers. Butte, Mont., one of the smallest cities surveyed, was highest among the cities of 40,000 to 100,000 population and ranked eleventh among the 75 cities studied. For journeymen, Charlotte, N. C., and Jackson, Miss., had the lowest city averages.

In 52 of the 75 cities studied the average increases for journeymen between 1945 and 1946 were over 10 percent.[9] Charlotte, N. C., and Houston, Tex., with increases of approximately 17 percent each, had the largest average gains for this group, Charleston, S. C., the smallest (less than 6 percent).

New York and Newark, as in the case of journeymen, also had the highest average rates for helpers and laborers; Mobile, Ala., and Jackson, Miss., were the lowest for helpers and laborers. With few exceptions (generally the highest-wage cities), there seemed to be little relationship between the level of rates for journeymen and help-

[9] These net changes were based on the specific rates for 1945 and 1946, weighted by the membership for each union in 1946. Only those quotations showing comparable data for both years were included. As building-trades hourly wage rates in normal years tend to be changed by additions of either 12½ or 10 cents, specific increases for 1946 will reflect larger percentage changes among those trades with comparatively low scales. For this reason cities which have lower scales tend to show the greatest percentage increases.

CHART 3


AVERAGE UNION WAGE RATES IN BUILDING TRADES ACCORDING TO SIZE OF CITY AND REGION
JULY 1, 1946
JOURNEYMEN
AVERAGE HOURLY RATES
$2.00
1.80
1.60
1.40
1.20
1.00
.80
.60
.40
.20
0
NORTH AND PACIFIC
SOUTH AND SOUTHWEST
WEIGHTED AVERAGE FOR 75 CITIES $1.792
HELPERS AND LABORERS
$1.40
1.20
1.00
.80
.60
.40
.20
0
WEIGHTED AVERAGE FOR 75 CITIES $1.138
1,000,000 AND OVER
500,000 UNDER 1,000,000
250,000 UNDER 500,000
100,000 UNDER 250,000
40,000 UNDER 100,000
SIZE OF CITIES
UNITED STATES DEPARTMENT OF LABOR
BUREAU OF LABOR STATISTICS

ers. Washington, D. C., for example, had the highest average for journeymen among cities of 500,000 to 1,000,000 population but next to the lowest for helpers and laborers.

In many cities substantial percentage increases were recorded during the year for the helper and laborer groups. The rise of 42 percent in Charleston, S. C., was due to the advance in building laborers' rates from 50 to 75 cents. In Houston, the increase of about 33 percent resulted from changes in rates for building laborers (from 60 to 80 cents an hour) and for other trades (from 75 cents to $1.00). Other increases of over 25 percent were found in Jacksonville, Memphis, Oklahoma City, Tampa, and Youngstown. The only city showing no increase in the helper and laborer group was Mobile.

Wage rates for building construction workers as a whole were consistently higher in the larger cities. Substantially higher averages were recorded for most building-trades workers in the North and Pacific region as compared with the South and Southwest area (chart 3). The differential for all journeymen trades combined amounted to about 15 cents in group III cities, 18 cents in group IV cities, and about 2 cents in the smallest or group V cities. The largest differences were found in the helper and laborer group, where the averages shown for the North and Pacific region were almost 34 cents higher in group III cities, 24 cents in group IV cities, and 12 cents in group V cities.

Cities in the North and Pacific area had higher journeymen averages than cities in the South and Southwest region in 62 of 74 possible comparisons. With the single exception of elevator constructors' helpers in the group V cities, all 19 comparable averages for helpers and laborers were also substantially higher in the North and Pacific section than in the South and Southwest. The higher average for elevator constructors' helpers among group V cities in the South and Southwest was due to a rate of $1.38 an hour in Phoenix compared with a rate of $1.02 in Portland, Maine.

Overtime and Sunday Rates

After the war most building-trades unions returned to prewar standards regarding overtime and Sunday rates. During the war, time and a half for overtime was the general practice as a result of the wartime stabilization agreement between the contracting agencies of the Federal Government and the Building and Construction Trades Department of the American Federation of Labor.

In July 1946, over three-fifths of the journeymen received double the basic rate if they were required to work other than regular hours. In this industry, this generally means after 8 hours per day, 40 hours per week, on Saturdays, or beyond specified daily hours such as after 5 p. m. or before 8 a. m. Only 8 trades had a majority of their mem-

bers covered by an overtime rate of time and a half. In 7 trades, over 90 percent of the membership was included under double-time rates. About 9 of every 10 journeymen received double time if required to work on Sunday.

The situation was different for helpers and laborers, as only about a fourth of the workers received double pay for work at other than regular hours; about three-fourths received time and a half. If required to work on Sunday, however, 9 out of 10 helpers and laborers received double time, their proportion equaling that of journeymen.

Weekly Hours

On July 1, 1946, straight-time weekly hours averaged 39.2 for all building-trades workers; journeymen averaged 39.1 hours and helpers and laborers 39.5 (table 3). Over four-fifths of the journeymen were on the standard 40-hour week; most of the others had a 35-hour week. Electricians, plasterers, and plumbers were the only trades with a substantial percentage of members on the 30-hour week, largely owing to the 30-hour straight-time week for these trades in New York City. Nine out of every 10 helpers and laborers were covered by the 40-hour week.

TABLE 5.—*Indexes of union weekly hours in all building trades, 1907–46*

[1939=100]

Year	All trades	Journeymen	Helpers and laborers	Year	All trades	Journeymen	Helpers and laborers
1907	124.3	123.8	126.1	1927	114.7	114.8	113.9
1908	122.4	122.0	123.5	1928	114.0	114.0	113.8
1909	120.7	120.5	121.0	1929	113.0	113.3	111.5
1910	119.2	119.1	118.8	1930	109.8	110.0	109.0
1911	118.8	118.7	118.6	1931	108.5	108.5	108.1
1912	118.4	118.3	118.3	1932	106.5	106.6	105.7
1913	118.2	118.0	118.3	1933	106.2	106.2	105.2
1914	117.7	117.7	117.6	1934	102.3	102.3	101.9
1915	117.6	117.6	117.5	1935	101.5	101.5	101.2
1916	117.2	117.1	117.2	1936	101.5	101.5	101.4
1917	116.9	116.9	116.7	1937	101.9	101.9	101.8
1918	116.3	116.2	116.3	1938	100.2	100.1	100.2
1919	115.7	115.7	115.2	1939	100.0	100.0	100.0
1920	115.1	115.2	114.5	1940	99.9	100.0	99.4
1921	115.0	115.1	114.5	1941	100.3	100.5	99.7
1922	115.0	115.2	114.2	1942	101.1	101.8	98.8
1923	115.1	115.3	114.4	1943	101.0	102.0	98.1
1924	115.1	115.3	114.4	1944	101.2	102.2	98.1
1925	115.1	115.3	114.2	1945	101.2	102.2	98.1
1926	114.9	115.1	113.9	1946	100.2	101.1	97.4

Straight-time weekly hours for all building trades workers declined about 1 percent during the year, bringing the index to 100.2—very close to the 1941 figure (table 5). This reduction was caused by the termination of the agreement between the unions and the Government which established the 40-hour week,[10] and by the transfer of workers from Government to private projects. Prior to the war, many unions had straight-time workweeks of less than 40 hours and

[10] An agreement between the Building and Construction Trades Department of the American Federation of Labor and the Contracting Agencies of the United States Government, dated May 22, 1942, and effective July 1 of that year, stabilized wages and established the straight-time 40-hour week on all Government projects.

in general did not require overtime pay for hours up to 40 per week on either Federal or private work during the war. Because of the large volume of work available at the present time, some of these unions continued their 40-hour week agreements.

Straight-time hours for journeymen fell somewhat more than for helpers and laborers, because very little adjustment was necessary in 1942 to bring the helpers to a 40-hour week, whereas greater adjustment was necessary for the journeymen. The greatest hourly reduction recorded (7 percent for steam and sprinkler fitters' helpers) resulted from a decrease in hours (from 40 to 35) in New York City.

Apprentices

Typical of the significant changes brought about by the postwar boom in the construction industry was the indication (by more than 1,050 building-trades locals in the cities surveyed) that there were approximately 9 active journeymen for each apprentice in July 1946, contrasted with a ratio of almost 34 to 1 a year earlier. Proportions of apprentices to journeymen ranged from less than 2 percent for stonecutters and stonemasons to 23 percent for asbestos workers. Exceeding the over-all average of 9 to 1 were the electricians, cement finishers and plasterers, and sheet-metal workers, with about 5 journeymen to each apprentice. A low ratio was recorded for painters and paperhangers—1 apprentice to more than 20 journeymen. Significant increases in the apprentice labor force were reported by the carpenters, bricklayers, cement finishers, lathers, plasterers, and sign painters.

Trade practices, labor-market conditions, and custom exert far greater influence on apprentice-journeymen ratios than size of trade membership. Carpenters, with the largest membership tabulated, had about 1 apprentice for each 10 journeymen, whereas asbestos workers, with about 2 percent as many members as the carpenters, reported about 1 apprentice for every 4 journeymen.

Over two-fifths of the locals queried reported that union regulations permitted further expansion of the apprentice force over the number employed July 1, 1946. This group included virtually all of the granite and the stone cutters' locals, about two-thirds of the cement finishers and plasterers', and half of the lathers' and roofers' unions. Among the 22 cities in which at least 50 percent of the building-trades locals indicated that opportunity for expansion existed, were Chicago, New York, Philadelphia, Pittsburgh, and San Francisco. On the other hand, more than three-fifths of the locals of boilermakers, bricklayers, electricians, glaziers, plumbers, and sheet-metal workers reported that apprentice membership could not be further increased. Two-thirds of the locals contacted stated that they would not favor

employing more apprentices than their existing ratios permitted. In contrast, significant proportions (although in no case a majority) of the bricklayers', cement finishers' and plasterers', lathers', and roofers' locals favored the employment of more apprentices than allowed by present ratio. Two of the numerically small trades had a majority of the locals on record as favoring an expansion of the apprentice ratios.

Better than 7 of every 10 locals tabulated have established apprentice programs in cooperation with employers or their associations and have registered these programs with either a State or Federal apprentice agency. About two-thirds of the locals reported that the average apprentice rate considered as a percentage of the journeyman rate was higher in July 1946 than in 1939.

Union Participation in Residential Construction

Seventy-three percent of the building-trades locals reported that they negotiated agreements covering most of the residential construction work in their areas. At least 8 out of 10 locals of building laborers, painters and paperhangers, electricians, carpenters, and plumbers, and a slightly lower proportion of bricklayers, cement finishers and plasterers, glaziers, and sheet-metal locals indicated that they controlled the bulk of residential work in their territory. On a geographical basis, more than half of the unions in 60 cities (44 in the North and Pacific region, 16 in the South and Southwest) had jurisdiction over the major portion of residential work in their localities. In only 8 cities did all of the unions claim to control a majority of this branch of the work.

Almost all the locals reported that their agreements make no provision for lower scales for residential work. According to union officials contacted in the 75 cities surveyed, over 250,000 organized building-trades workers were engaged on residential construction on July 1, 1946, of whom about 89 percent were working under union agreement; the remainder were employed with union sanction. Substantial majorities of the locals asserted that residential work not under union agreement on July 1, 1946 did not generally command lower scales than either union or nonunion commercial work or union residential work.

In two cities (in Pennsylvania), however, all the locals maintained that residential work not under union agreement commanded lower scales than nonunion commercial work. All of the locals in 7 cities reported that such scales were lower than union commercial rates, and in 9 cities each of the locals claimed that lower scales generally prevailed for nonunion residential work than for such work under union agreement.

Labor Requirements

Labor Requirements in Softwood Plywood Production [1]

PLYWOOD, a relatively new building material, is the subject of the fourth [2] in a series of studies by the Bureau of Labor Statistics of the labor required to produce the principal types of building materials.

Plywood made to special size and shape was used for furniture and other manufactures as early as the middle of the 19th century. However, it was not until 1905 that it was made in stock sizes, and not until about 1920 that the material now known as Douglas fir plywood was first produced. About 153 [3] million square feet of the latter was manufactured in 1925, the first year for which data are available. Thereafter production rose to a peak of 1,840 million square feet in 1942, and then dropped for three consecutive years to 1,222 in 1945. In 1946, owing partly to substantial increases in production rates during the last months of the year, output exceeded 1,400 million square feet, about half of which was in what are generally accepted as construction grades. This volume of production was only about enough to meet the estimated minimum requirements for the current housing program and other essential needs.

Plywood board consists usually of an odd number of sheets of veneer so bonded together that the grains of adjacent layers are at right angles to one another. The result is a large, smooth panel which is very strong in proportion to its weight, and which has wide use in both conventional and prefabricated construction. It is used as sheathing, as a covering for partitions, ceilings, and the inner surfaces of exterior walls, for subflooring, and in some cases for siding. To date, it has been the basis of most prefabricated construction, in which it is better adapted than solid lumber for the covering of panels. In addition, it is used in doors and cabinets, and in the construction of concrete forms.

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[1] Prepared by Roland V. Murray in the Bureau's Construction and Public Employment Division, under the direction of Brunswick A. Bagdon. The field data were collected by Joe R. Brinkerhoff of the Bureau's San Francisco regional office.

[2] For previous studies, see Monthly Labor Review, issues of September 1946, Labor Requirements in Cement Production; November 1946, Labor Requirements in Production and Distribution of Concrete Masonry Units and Concrete Pipe; and December 1946, Labor Requirements in Southern Pine Lumber Production.

This report will be included in a forthcoming bulletin which will contain a detailed analysis of labor requirements in the production and distribution of lumber and lumber products.

[3] The standard unit of measure in the industry is a square foot of 3-ply material of a total thickness of 3/8 inch.

Scope and Method of Survey

For a number of technical reasons, only Douglas fir has thus far been widely used in the production of softwood [4] plywood. The presence of cracks and center rot in other woods, their longer drying schedules, and their unsatisfactory gluing and sanding properties are among the factors which have discouraged their use. Hence, at least 97 percent of the total softwood plywood footage produced in early 1946 was from Douglas fir, the remaining 3 percent being chiefly from Ponderosa pine, with a scattering of other woods. The industry is therefore confined largely to those areas in western Washington and Oregon in which Douglas fir is the predominant species. It comprises only some 35 mills, 2 of which are in northern California and account for the relatively small amounts of plywood produced from woods other than Douglas fir.

In order to obtain data for the current survey, a Bureau representative visited 9 of the Douglas fir plywood plants, selected for study in cooperation with the Douglas Fir Plywood Association. These plants accounted for nearly 43 percent of total softwood plywood production during the first half of 1946, the period covered by this survey. Sixty-nine percent of the sample production coverage was obtained in 7 Washington mills. This, however, only slightly overemphasizes the importance in the industry of that State, which has about two-thirds of the total Douglas fir plywood capacity. At each plant, the representative transcribed from plant records data regarding total amount of production, man-hours worked in each principal plant department, and quantities of materials consumed, during a representative period in the first half of 1946. Observations of plant operations during these visits were supplemented by discussions with technical men in the trade association.

Man-Hour Requirements, 1946

The data obtained indicate that an average of 12.4 man-hours of labor were required in the mill to produce 1,000 square feet of plywood. The range of requirements in the individual mills surveyed was from 9.7 to 15.1 man-hours. The rather wide plant-to-plant variations reflect differences not only in plant efficiency but also in types of products. Plant efficiency is very largely a matter of plant age; the older mills were originally merely the panel departments of door plants, and the subsequent tremendous expansion overtaxed their facilities.

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[4] Hardwood plywood is used mostly for furniture, store and office fixtures, and similar products. Its use in construction is largely limited to decorative paneling and ceiling. It will not be an important factor in the current housing program and therefore is not included in the current survey.

The effect of type of product on man-hour requirements is illustrated by the 2 plants at the extremes of the range noted above. The plant with highest requirements manufactured a variety of products, including exterior [5] plywood (which requires closer control in manufacture than the interior type), scarfed panels (giant panels produced by gluing together standard panels in a special hot press), and specialty items; the plant with the lowest requirements produced only standard interior panels, the simplest type of product. Another factor distorting plant-to-plant comparison arises from the fact that some plants produce for themselves certain essential items which more commonly are purchased. Thus, 4 of the surveyed plants generated their own electric power, and 2 manufactured their own glue.

The total man-hour requirements for the production of 1,000 square feet of plywood were distributed, by department, as follows:

	Man-hours per 1,000 square feet (⅜ inch basis)	
	Average	*Range*
Total, all departments	12.4	9.7–15.1
Production departments	10.5	8.5–13.1
Green end	1.6	----
Drying	1.6	----
Assembly (including finishing)	6.5	----
Shipping	.8	----
Nonproduction departments	1.9	1.2– 2.9
Plant burden	1.3	----
Administration and selling	.6	----

Production departments.—Relatively few man-hours (1.6 per 1,000 square feet) are required in the green end operations, where the veneer sheets are produced. Here, the "peeler" logs (straight, sound logs, usually of a large diameter) are drawn from the pond and cut into lengths (usually 8 feet) determined by the desired length of the plywood panels. The bark is removed, and the log is mounted in a lathe which revolves it against a knife running the entire length of the log. The veneer is thus peeled off in a manner which resembles the unrolling of a large roll of thick paper. It is conveyed over tables to clippers which cut it to panel widths or to widths determined by defects in the log.

In the drying department, which accounts for the same number of man-hours as the green end operations, the individual pieces of veneer are run through a mechanical dryer, which reduces the moisture

[5] There are two basic types of plywood—the "exterior" and the "interior" (formerly called "moisture-resistant")—which differ chiefly in the type of adhesive used. The former is bonded chiefly with phenolic resin by the hot-press process, and represents the maximum in resistance to moisture. The latter is bonded with casein, soy bean, or similar glue, generally in a cold press, and is for use where continuous exposure to the elements is not required.

content to the desired low percentage in a few minutes. The veneer is then ready for the actual process of plywood manufacture.

More than half of the total man-hour requirements, as shown in the above tabulation, are expended in the assembling department, which bonds the veneer sheets into plywood and finishes the panels according to their intended uses. Since many more different processes are used in this department than in any of the others, an attempt has been made to analyze its functions by grouping the processes into three classes as follows:

	Man-hours per 1,000 square feet (⅜ inch basis)	
	Average	*Range*
Assembly, all processes	6.5	4.1–8.0
Veneer preparation	2.1	-------
Bonding	2.5	-------
Finishing	1.9	-------

Owing to differences in production methods and cost systems, the above figures are based on data which may not be strictly comparable from plant to plant. Moreover, only 6 of the 9 sample plants were able to supply readily the detail necessary for this distribution. It is therefore offered only as a rough indication of the allocation of the relatively large number of hours absorbed by the assembling department.

Veneer preparation, as referred to above, consists chiefly of the joining of fractional widths of veneer (their substandard size resulting from defects in the log) into full-size sheets by taping or gluing; the removal of smaller defects by cutting, plugging, and patching; and the selection of veneers appropriate for different uses. Bonding involves spreading glue on the prepared veneer sheets; "laying up" the latter into panels of the desired number of plies; and subjecting the assemblies to pressure (and, frequently, to heat) to set the adhesive. Finishing the panels requires dimensioning on saws; sanding; finish patching, to remove defects which have appeared during the manufacturing; and such treating for special purposes as oiling the faces of concrete-form plywood. A further expenditure of 0.8 hour of direct labor is required for shipping, which includes handling through the storage room and to the shipping facility, and packing.

Nonproduction departments.—The man-hours shown for plant burden, which account for the greater part of the nonproduction labor requirements, represent for the most part the labor needed in the maintenance and protection of the mill and the operation of its power plant. Data from a few of the mills surveyed indicated that maintenance and protection required about 0.8 hour, and power-plant operation 0.4 hour. (Power-plant requirements varied considerably according to whether the mills generated or purchased their electric power.) The additional 0.1 hour represents chiefly general plant

superintendence not chargeable to a specific production department, and a very small amount of laboratory work. Administration and selling, which, with plant burden, make up the nonproduction man-hours, include the activities of the central office executive and clerical personnel.

Comparison of Man-Hour Requirements, 1935 and 1946

A previous survey of labor requirements in the production of lumber and allied building materials [6] measured the number of man-hours required to produce 1,000 square feet of plywood in 1935 in a sample of 6 mills, representing, as in the current study, about 40 percent of total production. A comparison of the figures developed in the two surveys follows:

	Man-hours per 1,000 square feet (⅜ inch basis)	
	1935	*1946*
Total, all departments	16. 6	12. 4
Factory production	15. 1	11. 8
Administration and selling	1. 5	0. 6

A substantial decrease in total man-hour requirements, amounting to a little more than 25 percent, appears to have occurred over the 11-year period. Although the two measures are not strictly comparable because of differences in the samples and methods of data collection, technical men in the industry believe that they reflect with reasonable accuracy the trend over the period.

Since the earlier study attempted only the requirements breakdown as shown above, it is not possible to analyze by department the decrease in "factory production" requirements. A review of some of the improved machines and techniques suggests, however, that labor requirements have decreased to some extent in every department.

Among the more widely adopted improvements in the green end operations are mechanical barkers, which replaced the hand-wielded adzes; core lathes, for the rapid production of crossbanding [7] veneers from cores of logs peeled down on the large primary lathes; and automatic clippers, which increase the rate at which an operator can cut veneer sheets from the continuous ribbon flowing from the lathe. Driers, although not basically changed, have been redesigned to permit faster operation. Significant improvements in the dry end operations include the automatic plugger, which cuts out a defect and inserts a tight patch in a single operation, and the edge-gluer or tapeless splicer for joining fractional widths of veneer. Through-

[6] Labor Requirements in Lumber Production, Monthly Labor Review, May 1937. (Reprinted as Serial No. R-529.)

[7] In plywood of 5 or more plies, crossbanding is the veneer used between the core (innermost layer) and the faces.

out the plant, special small lift trucks have replaced the hand propelled trucks for materials transportation.

The decrease in unit labor requirements over the 11-year period tells only part of the story of the industry's increased efficiency, however, because of the concurrent improvements in the quality and diversity of the product. Thus, the exterior type of plywood, which in early 1946 made up over 35 percent of total output and which has extended the use of plywood to entirely new fields, in 1935 had just been introduced commercially. Still more recent is the overlaying of veneer or plywood with resin-impregnated paper or pulp to improve appearance and surface wearing qualities. Moreover, improvement in quality and reduction in labor requirements have been accomplished in the face of a steady deterioration in the quality of peeler logs available.

SUPPLEMENTAL REQUIREMENTS

The man-hours required at the plant for manufacture of plywood represent less than 70 percent of the total input of labor represented by a quantity of plywood delivered at the construction site.

A substantial number of man-hours are required to produce the principal raw material, Douglas fir peeler logs. The study in 1935 established that 6.2 [8] man-hours were required to cut and haul 1,000 board feet of logs in the Douglas fir region. Thus, about 2.8 man-hours are required for the production of the 452 board feet of logs which, according to data collected by the Bureau of the Census,[9] are consumed in the manufacture of 1,000 square feet of plywood. It is assumed, however, that this is somewhat less than the actual current logging requirement, because of the increasingly long distances over which logs must be hauled. Many of the Washington plants are unfavorably located with respect to the remaining sources of peeler grade timber, most of which are in central and southern Oregon, and log hauls of from 250 to 300 miles are not uncommon.[10]

No estimates are available of the man-hours required for the manufacture of glue, oils, sandpaper, and other materials, but it is thought the effect of these on total labor requirements is unimportant. Data

[8] This figure will be revised when the results of a projected study of current labor requirements in the Douglas fir region are available.

[9] Facts for Industry, Series M 13B–96; Softwood Plywood, March 1946. Materials consumption data, as previously mentioned, were obtained in the present study and agree closely with these Census figures. The latter are used, however, because they are based on a coverage of the entire industry.

[10] Survey of the Pacific Coast Softwood Plywood Industry, U. S. Forest Service, April 1946.

An interesting result of this log-transportation problem has been the establishment of "green peeler plants" close to the supply of peeler grade logs in Oregon. These plants are in effect semiportable green end operations, the veneer sheets produced being shipped to the parent factory for drying and assembly into plywood; several economies result from this transportation of veneer rather than logs. There is, however, a difference of opinion in the industry as to the probable future of the green veneer mill, and the present survey therefore includes only operations at the parent plants.

on requirements for the production of the two principal types of glue—soy bean and phenolic resin—are, however, being assembled from trade association sources and will be incorporated in the forthcoming lumber bulletin.

Transportation of the finished product to the construction site, another supplementary requirement, takes a comparatively large number of man-hours because of the location of the plywood industry with respect to the major consuming areas. In 1932, the last year for which data are available, it was determined that the average rail haul of plywood shipments was 1,153 miles. By use of methods developed by the Bureau in the 1937 study [11] of labor requirements in rail transportation, it is estimated that the rail haul of plywood over this distance required about 5.0 man-hours per ton, or about 2.3 hours for 1,000 square feet.

Thus, considering only these major items of labor requirements, a minimum of 17.5 man-hours are represented in 1,000 feet of plywood panels deposited on the job site.

[11] Labor Requirements in Rail Transportation of Construction Materials, Monthly Labor Review, October 1937. (Reprinted as Serial No. R. 637.)

Work Injuries

Work Injuries in Manufacturing, Third Quarter 1946

APPROXIMATELY 128,800 employees of manufacturing establishments are estimated to have experienced disabling work injuries [1] during the third quarter of 1946. This total represents 4,800 more injuries than occurred in the second quarter and 21,300 more than occurred in the first quarter of 1946. Compared with the third quarter of 1945, the volume of injuries in the corresponding period of 1946 showed an increase of 800. The total for the first 9 months of 1946, however, was over 73,000 less than for the first 3 quarters of 1945.

The final outcome of many of the third-quarter injuries was still unknown at the time the reports were prepared. It is impossible, therefore, to evaluate accurately the economic losses which these injuries may ultimately entail. At the time of reporting, however, it was known that about 400 of the injured workers had died and that about 5,400 others would have some form of permanent physical impairment. As a partial evaluation of the cost to society, it is conservatively estimated that the workers injured in the third quarter lost at least 2,576,000 man-days of work during the period because of their injuries. The value of this amount of working time in wages alone probably exceeds $20,000,000.

In contrast to the rising trend in the total volume of work injuries which has been evident during the second and third quarters of 1946, the ratio of injuries to actual time worked has remained remarkably constant. In the first 3 months of the year the average for all manufacturing was 18.2 disabling injuries for each million employee-hours worked. In the second quarter the average was 18.1, and it remained at this level during the third quarter. The increase in the actual number of injuries resulted directly from the rise in manufacturing employment rather than from any general relaxing of safety standards.

Among the 116 industry classifications for which data were available, the best third-quarter safety record was achieved in the women's and children's clothing industry, which had an average of only 3.4 disabling injuries per million employee-hours worked. This was the third consecutive quarter in which this industry had a frequency

[1] A disabling work injury is one which results in (*a*) death or (*b*) permanent physical impairment or (*c*) renders the injured person unable to work for a period of time beyond the day on which the injury occurred.

rate of less than 5, giving it a cumulative average of 3.9 for the first 9 months of 1946. The best cumulative average for the 9-month period, however, was 2.8 for the synthetic rubber industry, which also had an average of less than 5 in each of the last 3 quarters. The third-quarter average of 3.7 for the synthetic rubber industry, however, was not quite as good as that of 3.6 for the electric lamp (bulbs) industry. The latter, as a result of its record of less than 5 disabling injuries in both the second and third quarters, had a cumulative frequency rate of 3.9 for the first 9 months of 1946, the same as that of the women's and children's clothing industry. Three additional industries which had third-quarter frequency rates of less than 5 were synthetic textile fibers, 4.0; aircraft, 4.8; and photographic apparatus and materials, 4.8.

In sharp contrast to these outstanding low injury-frequency rates the third-quarter average for combination saw- and planing-mill establishments was 70.6 disabling injuries per million employee-hours worked. Plants engaged exclusively in sawmill operations had an average frequency rate of 60.4, and the wooden-container industry had an average of 50.2.

Comparisons between the second- and third-quarter injury-frequency rates of the various industry classifications indicated a slight tendency toward higher rates. Among the 114 classifications for which comparison was possible, there were 25 industries which had no significant change in their frequency rates,[2] 53 which had significant increases in their third-quarter rates, and 36 which had significant decreases in their rates. In the general all-manufacturing average, however, the lesser number of frequency-rate reductions balanced the greater number of increases because most of the latter occurred in the smaller industries.

Industrial injury-frequency rates [1] for selected manufacturing industries, third quarter 1946, with cumulative rates for 1946

Industry [3]	Third quarter					Frequency rate	
	Number of establishments [3]	Frequency rate [4] for—				Cumulative Jan.–Sept. 1946 [4]	1945: Annual
		July	August	September	Third quarter		
Apparel:							
Clothing, men's and boys'	402	9.4	8.1	9.2	8.9	8.3	8.4
Clothing, women's and children's	316	3.5	2.9	3.9	3.4	3.9	4.6
Apparel and accessories, not elsewhere classified	48	(5)	(5)	(5)	8.7	6.6	6.3
Trimmings and fabricated textile products, not elsewhere classified	57	18.6	16.6	14.9	16.8	15.0	17.4
Chemicals:							
Compressed and liquefied gases	38	7.0	2.4	7.5	6.0	7.4	17.7
Drugs, toiletries, and insecticides	75	15.1	16.0	13.7	15.0	14.6	14.9
Explosives	44	4.8	7.5	4.5	5.6	5.2	3.6
Industrial chemicals	186	14.1	14.8	13.4	14.1	12.8	16.0
Paints, varnishes, and colors	61	16.4	18.9	14.4	16.6	14.7	17.6

See footnotes at end of table.

[2] No change of less than a full frequency-rate point was considered significant.

Industrial injury-frequency rates [1] for selected manufacturing industries, third quarter 1946, with cumulative rates for 1946—Continued

Industry [2]	Third quarter					Frequency rate	
	Number of establishments [3]	Frequency rate [4] for—				Cumulative Jan.–Sept. 1946 [4]	1945: Annual
		July	August	September	Third quarter		
Chemicals—Continued							
Plastic materials, except rubber	18	7.2	7.5	7.7	7.5	7.0	9.5
Soap and glycerin	57	9.1	7.7	8.4	8.4	7.9	11.6
Synthetic rubber	22	5.7	2.2	2.9	3.7	2.8	6.6
Synthetic textile fibers	18	4.7	4.1	3.1	4.0	5.1	8.9
Chemical products, not elsewhere classified	51	26.8	21.1	17.0	21.5	21.4	15.2
Electrical equipment:							
Automotive electrical equipment	15	(5)	(5)	(5)	13.9	13.3	13.7
Batteries	24	18.0	25.1	21.3	21.8	19.8	21.8
Communication and signaling equipment, except radio	25	7.0	5.8	5.3	5.9	7.6	6.4
Electrical appliances	32	18.1	16.6	17.3	17.3	14.4	15.3
Electrical equipment for industrial use	245	11.7	11.6	10.8	11.3	11.5	9.4
Electric lamps (bulbs)	16	4.4	2.1	4.8	3.6	3.9	5.1
Insulated wire and cable	29	18.0	18.9	15.1	17.3	20.2	18.0
Radios and phonographs	129	7.3	6.1	6.6	6.6	6.6	6.8
Electrical equipment, not elsewhere classified	22	5.6	10.0	9.8	8.5	8.3	8.2
Food:							
Baking	43	24.2	17.7	28.5	23.4	19.8	18.6
Canning and preserving	36	22.7	30.0	20.6	24.6	25.0	27.2
Confectionery	34	16.2	21.6	14.9	17.7	18.2	18.1
Dairy products	88	26.3	30.3	24.2	27.0	27.9	33.1
Distilleries	48	10.0	7.6	7.7	8.4	9.7	17.1
Grain-mill products	18	15.2	18.5	11.2	15.0	14.5	27.6
Slaughtering and meat packing	363	32.5	31.0	32.4	32.3	33.0	32.4
Food products, not elsewhere classified	41	16.7	18.8	11.1	15.5	18.2	20.8
Furniture and lumber products:							
Furniture, wood	91	25.5	30.4	21.4	25.9	25.3	27.5
Mattresses and bedsprings	88	29.6	20.3	19.6	23.1	27.2	27.8
Wooden containers	244	50.2	53.2	46.9	50.2	45.6	41.1
Miscellaneous wood products, not elsewhere classified	99	42.6	41.8	25.2	36.4	32.0	32.1
Iron and steel:							
Bolts, nuts, washers, and rivets	44	21.4	18.6	16.1	18.6	17.6	21.6
Cold finished steel	37	25.1	32.2	30.6	29.4	27.6	22.5
Cutlery and edge tools	32	23.9	17.2	18.3	19.3	19.4	26.0
Fabricated structural steel	226	32.6	28.5	28.4	29.8	29.8	27.6
Forgings, iron and steel	118	32.4	31.0	27.9	30.4	28.1	32.5
Foundries, iron	376	49.9	48.5	46.1	48.1	47.1	44.8
Foundries, steel	106	35.0	40.9	35.5	37.2	36.1	35.9
Hardware	49	18.9	20.7	22.3	20.7	18.0	16.6
Heating equipment, not elsewhere classified	85	32.7	34.6	30.8	32.7	28.7	33.8
Iron and steel	156	9.0	9.0	8.8	8.9	9.2	8.7
Metal coating and engraving	64	29.0	24.9	38.4	30.7	26.2	31.4
Ornamental metal work	49	37.9	34.4	37.5	36.6	26.7	21.5
Plate fabrication and boiler-shop products	120	39.9	39.8	34.0	37.9	36.7	32.8
Plumbers' supplies	40	17.2	20.6	18.3	18.8	19.8	16.4
Screw-machine products	95	26.6	25.0	28.4	26.7	21.0	15.5
Sheet-metal work	66	35.8	31.5	27.7	31.6	30.7	25.6
Stamped and pressed metal products, not elsewhere classified	235	25.1	25.3	24.7	25.0	22.6	22.2
Steam fittings and apparatus	61	19.6	18.4	19.6	19.2	22.0	22.9
Steel barrels, kegs, drums, and packages	31	19.2	18.8	20.4	19.5	18.8	31.7
Steel springs	15	30.0	32.1	26.8	29.6	26.9	17.4
Tin cans and other tinware	22	22.1	16.8	24.1	20.9	19.7	17.3
Tools, except edge tools	69	31.5	24.2	26.6	27.2	24.3	22.8
Wire and wire products	150	27.7	21.3	21.6	23.2	23.2	23.1
Wrought pipes, welded and heavy-riveted	14	(5)	(5)	(5)	16.3	18.9	19.6
Iron and steel products, not elsewhere classified	30	25.7	33.7	31.3	30.5	27.2	25.7
Leather:							
Boots and shoes, not rubber	242	13.4	12.9	10.6	12.3	11.9	10.8
Leather	35	35.7	33.8	29.4	32.9	31.7	28.4
Lumber:							
Millwork, structural	244	41.2	35.9	36.9	37.9	37.9	35.1
Sawmills	72	56.6	64.1	60.0	60.4	59.4	56.6
Sawmills and planning mills combined	34	70.7	77.6	62.6	70.6	64.4	52.6
Planing mills	97	49.6	53.3	34.1	45.6	43.5	36.9
Plywood mills	47	43.0	49.8	50.8	48.0	43.5	40.9
Machinery, except electric:							
Agricultural machinery and tractors	77	25.8	24.9	21.5	24.1	22.9	23.5
Bearings, ball and roller	27	19.7	24.9	21.9	22.3	17.3	15.8

See footnotes at end of table.

Industrial injury-frequency rates [1] for selected manufacturing industries, third quarter 1946, with cumulative rates for 1946—Continued

Industry [2]	Third quarter					Frequency rate	
	Number of establishments [3]	Frequency rate [4] for—				Cumulative Jan.–Sept. 1946 [4]	1945: Annual
		July	August	September	Third quarter		
Machinery, except electric—Continued							
Commercial and household machinery	109	11.8	12.7	13.0	12.5	12.3	15.3
Construction and mining machinery	126	25.5	23.3	24.4	24.4	24.8	25.9
Elevators, escalators, and conveyors	28	30.2	26.3	31.7	29.3	27.4	15.1
Engines and turbines	52	17.0	19.1	17.3	17.9	17.6	12.4
Food-products machinery	59	28.6	26.7	23.1	26.1	26.3	20.8
General industrial machinery, not elsewhere classified	204	27.1	21.8	22.7	23.8	23.4	18.1
General machine shops (jobbing and repair)	101	36.0	30.7	29.8	32.1	24.9	18.1
Mechanical measuring and controlling instruments	56	11.1	13.6	15.3	13.4	13.6	11.5
Mechanical power transmission equipment, except ball and roller bearings	65	23.2	20.9	18.3	20.7	21.2	19.8
Metalworking machinery	476	15.0	16.5	14.2	15.2	15.8	15.8
Pumps and compressors	85	26.9	27.1	29.8	28.0	25.6	17.5
Special industry machinery, not elsewhere classified	121	22.4	28.6	23.1	24.8	26.7	20.9
Textile machinery	28	17.6	25.9	18.8	20.9	16.8	14.1
Nonferrous metals:							
Aluminum and magnesium products	24	22.5	35.7	29.0	29.4	27.0	16.5
Foundries, nonferrous	238	28.8	22.3	25.8	25.5	26.7	25.5
Nonferrous basic shapes and forms	29	17.9	17.4	16.6	17.3	15.6	18.6
Watches, clocks, jewelry, and silverware	38	9.4	9.0	11.0	9.8	8.8	9.0
Nonferrous metal products, not elsewhere classified	66	16.2	14.0	19.0	16.4	17.1	25.3
Ordnance:							
Ordnance and accessories, not elsewhere classified [6]	20	9.5	7.6	5.7	7.6	8.5	14.7
Paper:							
Paper boxes and containers	315	20.3	27.4	18.7	22.2	23.7	22.6
Paper [7]	359	28.7	26.6	22.5	25.8	27.3	28.6
Paper products, not elsewhere classified	30	22.1	22.7	24.3	23.0	20.7	21.0
Printing:							
Book and job printing	68	8.8	7.5	5.4	7.2	8.7	8.5
Rubber:							
Rubber boots and shoes	14	11.5	8.3	11.3	10.2	12.2	12.5
Rubber tires and tubes	30	14.4	15.4	11.9	13.8	15.1	13.5
Rubber products, not elsewhere classified	76	20.9	20.5	17.8	19.7	20.2	18.2
Stone, clay, and glass:							
Structural clay products	23	(5)	(5)	(5)	20.0	24.3	30.2
Glass	35	25.1	19.4	19.4	21.2	17.7	15.7
Pottery and related products	30	21.9	17.7	22.1	20.5	21.1	18.5
Stone, clay, and glass products, not elsewhere classified	42	20.6	22.6	18.0	20.4	19.3	18.0
Textiles:							
Cotton yarn and textiles	190	12.5	14.3	11.2	12.7	12.4	15.1
Dyeing and finishing textiles	52	21.2	21.8	17.4	20.2	19.2	19.5
Knit goods	79	8.6	5.8	7.0	7.0	9.6	7.7
Rayon and other synthetic and silk textiles	48	9.9	11.5	11.6	11.0	10.8	14.2
Woolen and worsted textiles	145	19.6	18.1	20.0	19.2	18.7	20.1
Miscellaneous textile goods, not elsewhere classified	28	(5)	(5)	(5)	23.4	20.4	21.1
Transportation equipment:							
Aircraft	22	5.0	4.6	4.8	4.8	5.0	9.4
Aircraft parts	30	10.5	14.6	12.2	12.3	11.7	10.6
Motor vehicles	89	13.3	13.3	10.9	12.5	12.7	13.0
Motor-vehicle parts	106	25.1	25.4	25.4	25.3	24.3	20.1
Railroad equipment	47	22.3	20.4	17.6	20.1	21.1	20.1
Shipbuilding	95	25.0	24.4	22.9	24.2	23.9	23.3
Miscellaneous manufacturing:							
Fabricated plastic products	39	13.2	8.7	16.3	12.7	14.0	17.4
Optical and ophthalmic goods	18	9.7	7.5	7.3	8.1	5.9	8.8
Photographic apparatus and materials	30	6.0	5.2	3.2	4.8	6.4	6.6
Professional and scientific instruments and supplies	56	11.9	11.2	12.6	11.9	9.8	7.1
Miscellaneous manufacturing, not elsewhere classified	154	18.6	15.8	15.4	16.4	17.2	11.6

[1] The frequency rate represents the average number of disabling industrial injuries for each million employee-hours worked.
[2] A few industries have been omitted from this table because the coverage for the month did not amount to 1,000,000 or more employee-hours worked.
[3] Number of establishments shown are for September.
[4] Computed from all reports received for the month; not based on identical plants in successive months.
[5] Not available.
[6] Includes all ordnance classifications formerly shown separately.
[7] Includes "Pulp" and "Paper and pulp, integrated"; formerly shown separately.

Labor-Management Disputes

Significant Recent Controversies, December 1946

WORK stoppages at the year's end were at the lowest level since VJ-day. Not only was the number of strikes less than in any previous postwar month, but workers involved and idleness were also well below the early part of 1946 when reconversion problems resulted in widespread labor-management controversies.

At the close of 1946, records of the Bureau of Labor Statistics disclosed that approximately 160 work stoppages were in effect. Practically all of these labor-management controversies were local in character and small in size, involving but a total of about 47,000 workers. By contrast, at the end of 1945 nearly 200 stoppages were in progress involving over 350,000 workers. Idleness resulting from strikes in late December 1946 was only about one-eighth as great as a year earlier.

Oakland General Strike

Economic activity in the Oakland (Calif.) area was disrupted December 3, 1946, when the Alameda County Central Labor Council and Building Trades Council (both AFL) called a community-wide stoppage in which an estimated 50,000 workers became involved. Public transportation, newspapers, restaurants, service stations, as well as many stores and factories, were affected.

The strike action stemmed from an incident on December 1 when Oakland police escorted loaded trucks of merchandise through picket lines at the Hastings Clothing Co. and the Kahn Department Store where members of the Retail Clerks International Protective Association (AFL) had been on strike since late October to enforce demands for union contracts with the two establishments. The Retail Merchants' Association, of which the two struck stores were members, had refused to recognize the union as bargaining agent until the union submitted evidence that it represented not only a majority of the workers employed by the two stores but also a majority of the clerks employed by all members of the association.

A state of emergency was proclaimed on December 4 by the Oakland City Council, following indications that gas, electricity, water, and telephone service might be cut off in support of the strike. A

business and industrial emergency committee also was established to assure food and other basic supplies for the area.

The same day, however, brought a promise of relief from the crippling effects of the stoppage. Officers of the International Brotherhood of Teamsters, Chauffeurs, Warehousemen and Helpers (AFL) ordered their members to observe their contracts and return to work regardless of the results of negotiations then in progress. Later, union representatives meeting with city officials and Federal conciliators agreed to reopen negotiations, provided the merchants' association would limit discussions to unionization of the Kahn and Hastings stores. The AFL unions agreed to terminate the general stoppage early December 5, if the local authorities, through the city manager, would promise not to provide police escort for "professional strike breakers" and the police would be impartial in legitimate labor disputes. Upon receipt of such assurances union leaders issued a back-to-work order. Transportation service was resumed, and many establishments reopened that same day (December 5). The strike at the Hastings and Kahn stores continued, however, and was still in effect at the end of December.

Strike of St. Paul School Teachers

Discontent over low salaries in the face of rising living costs resulted in a number of work stoppages and threatened strikes among public school teachers in the last 3 months of 1946. The largest of the stoppages involved over 1,100 teachers in St. Paul (Minn.) who remained away from their classrooms from November 25 to December 27. The strike was called by the local joint council of the American Federation of Teachers (AFL) after the St. Paul City Council, sitting as the board of education, failed to meet the teachers' demands for retroactive wage adjustments, higher salary ranges, and an increased city budget for school improvements. The council, sympathetic to the teachers' problem, declared it was unable to meet their demands because of expenditure limitations in the city charter.

Following the establishment of picket lines, Governor Thye of Minnesota met with members of the city council, local members of the State legislature, and representatives of the teachers' joint council. Subsequently, the Governor named an eight-member committee "to go into session until some solution is worked out." Members of the St. Paul Parents and Teachers Association supported the teachers in their demands by participating in picketing and by stating that the "strike policy (is) thoroughly justified and required by the present deplorable circumstances."

Settlement was reached December 27 after the City Charter Commission approved a proposed amendment, to be submitted to St. Paul voters at a special election, providing funds for increased salaries and school improvements. In addition, the city council, sitting as the board of education, approved salaries ranging from $2,400 to $3,600 effective January 1, 1947, with the maximum to rise to $4,200 on September 1, 1947. The preceding range in salaries was reported as from $1,300 to $2,600.

Work Stoppages in November 1946

FEWER work stoppages occurred in November 1946 than in any preceding month of the year, except February. Preliminary estimates of the Bureau of Labor Statistics indicate that November's total of 310 new stoppages was about one-third less than the 450 recorded for October.

The number of workers directly involved (450,000) in November labor-management controversies was dominated by the bituminous-coal stoppage which began November 21 and terminated December 7. This dispute accounted for about three-fourths of the workers and one-half of the month's estimated lost time of 4,750,000 man-days.

Including disputes which continued from earlier months, about 570 stoppages, involving approximately 620,000 workers, were in effect at some time during November.

TABLE 1.—*Work stoppages in November 1946, with comparable figures for earlier periods* [1]

Period	Work stoppages beginning in the period		Man-days idle (all stoppages)	
	Number	Workers involved	Number	Percent of estimated working time (all industries)
November 1946 [2]	310	450,000	4,750,000	0.7
October 1946 [2]	450	290,000	4,500,000	.6
November 1945	358	420,200	6,935,000	1.2
January–November:				
1946 [2]	4,335	4,545,000	107,475,000	1.5
1945	4,616	3,416,600	30,307,000	.4
1944	4,692	2,023,800	8,336,000	.1
1935–39 average	2,736	1,093,000	16,089,000	----------

[1] All known work stoppages, arising out of labor-management disputes, involving 6 or more workers and continuing as long as a full day or shift are included in reports of the Bureau of Labor Statistics. Figures on "workers involved" and "man-days idle" cover all workers made idle in establishments directly involved in a stoppage. They do not measure the indirect or secondary effects on other establishments or industries whose employees are made idle as a result of material or service shortages.

[2] Preliminary estimates.

Activities of the United States Conciliation Service, November 1946

During November 1946 the United States Conciliation Service terminated 1,034 disputes involving 318,484 employees—27.7 percent fewer cases than were terminated during the previous month. New assignments to disputes also declined during the month, 1,036 assignments having been made in November as compared to 1,288 in October.

In November 81.3 percent of all work stoppages were the result of failure to agree on recognition or wage issues. Compared with October wages were a relatively more important reason for work stoppages in November, while grievances became a less important cause. Stoppages caused by disputes over grievances dropped from 18.4 percent of all strikes in October to 11.1 percent in November, while those involving wages rose from 53.1 percent of all work stoppages in October to 67.3 percent in November.

TABLE 2.—*Cases closed by the United States Conciliation Service in November 1946, by type of situation and method of handling*

Method of handling	Total workers		Work stoppages		Threatened stoppages		Controversies		Other situations	
	Number	Workers	Number	Workers	Number	Workers	Number	Workers	Number	Workers
All methods	1,307	358,832	279	125,121	454	115,511	294	77,461	280	40,739
Settled by conciliation	841	279,563	230	114,202	390	105,664	221	59,697	------	------
Dispute called off	64	15,157	12	869	31	4,971	21	9,317	------	------
Unable to adjust	19	2,548	8	1,365	5	1,040	6	143	------	------
Referred to NLRB and other agencies	70	6,973	22	2,158	21	1,827	27	2,988	------	------
Referred to arbitration	33	13,852	7	6,527	7	2,009	19	5,316	------	------
Consent elections held or union membership verified	7	391	------	------	------	------	------	------	7	391
Decisions rendered in arbitration	[1] 125	12,915	------	------	------	------	------	------	125	12,915
Technical services completed	25	7,107	------	------	------	------	------	------	25	7,107
Miscellaneous services	123	20,326	------	------	------	------	------	------	123	20,326

[1] Includes 28 arbitration cases in which settlements were reached by the parties during the course of the arbitration proceeding.

Labor-Management Policy for U. S. Conciliation Service

DEFINITE steps for strengthening voluntary procedures in handling industrial disputes by the Conciliation Service of the United States Department of Labor were recommended by its Labor-Management Advisory Committee, in a recent statement of policy, unanimously adopted, which constituted the first public action of the committee.[1]

In stressing the need for preserving maximum flexibility in the mediation program of the Service at this time, the Committee emphasized the fact that, with the lifting of Federal wartime wage and

[1] Press release, U. S. Department of Labor, December 16, 1946 (S47-648).

related controls, free collective bargaining has emerged as the primary means of resolving industrial controversies, and that the Government's basic role is now limited to one of voluntary mediation through the Conciliation Service. The Committee therefore recommended the further development of four major techniques for this type of mediation in special kinds of dispute cases, to supplement the regular activities of the Service.

(1) *Special conciliators.*—The establishment of a panel of men nationally known for their work in labor relations was recommended, the members to be used as special conciliators in major industrial disputes.

(2) *Tripartite mediation.*—Indicating that in certain types of disputes the utilization of industry and labor representatives, to serve in an advisory capacity with the Federal conciliator, might be helpful, the Committee suggested the establishment of panels of such representatives by the Service.

(3) *Voluntary arbitration.*—With regard to controversies arising over the interpretation or application of the terms of a collective agreement, it was recommended that if industrial relations were likely to be improved thereby, provision be inserted in the contract for the use of voluntary arbitration as a final step in disposing of those grievance issues which are arbitrable under the agreement.

After all mediation processes have been exhausted, voluntary arbitration, also, may be recommended by the Conciliation Service as useful in disputes involving basic contract terms, although the Committee held that new issues should be determined at the bargaining table.

(4) *Emergency boards of inquiry,*[2] to be appointed outside of the Federal Government, are recommended for disputes of national importance only after all normal mediation efforts have failed, and by consent of the disputants. Their essential functions are to conduct hearings on the issues involved and to publish findings based on the evidence submitted at such times.

No single one of the above steps was expected to be a cure-all, but each procedure, in its proper place, was recommended as useful in assisting representatives of labor and management to arrive at a voluntary settlement of their problems.

Established on recommendation of the President's National Labor-Management Conference on industrial relations,[3] in January 1946, the Labor-Management Advisory Committee of the U. S. Conciliation

[2] Compare article on Value of Fact-Finding Procedure, Monthly Labor Review, November 1946 (p. 774).

[3] For details of this conference and recommendations in regard to the U. S. Conciliation Service, see The President's National Labor-Management Conference, November 5-30, 1945, Summary and Conference Reports, U. S. Division of Labor Standards, Washington, 1946 (Bulletin No. 77).

Service affirmed its unanimous belief in the work ability of free collective bargaining. Any form of compulsory arbitration or "super-machinery" for the disposition of labor disputes, in its opinion, might defeat rather than promote industrial peace.

The Advisory Committee consists of eight members, divided equally between labor and management, with two each appointed by the Secretary of Labor on recommendation of the American Federation of Labor, the Congress of Industrial Organizations, The National Association of Manufacturers, and the United States Chamber of Commerce, respectively.

Labor Laws and Decisions

Recent Decisions of Interest to Labor [1]

Fair Labor Standards Act

Split-day plan.—Another of the so-called split-day methods of computing wage payments has been held to violate the Fair Labor Standards Act.[2] Under the plan in question the regular 8-hour day was divided into two parts, of which 6.6 hours were called "regular" time and 1.4 hours were called "overtime," and the rate paid for the latter was 150 percent of that paid for the former. The court pointed out that "the vice in all these split-day plans is that their so-called 'regular' rate is not based on payments regularly made each week for the normal workweek and, consequently, their 'overtime' rate is not compensation for true overtime, that is, hours worked in excess of the normal workweek or workday." It held that the Fair Labor Standards Act requires that the regular rate be determined on the basis of the normal working day (which in this case was 8 hours); that the rate so determined must be applied to the first 40 hours worked; and that for all hours worked in addition, a rate of one and one-half times the regular rate must be paid.

The court rejected the defendant's contention that the plan was valid because it had been adopted pursuant to the demands of the employees, on the basis of the well-established principle that that which is illegal cannot be made legal by contract of the parties.

Applicability of act to volunteer worker.—The broad terms of the Fair Labor Standards Act, which defines "employ" as "suffer or permit to work," has been held to cover a volunteer rendering services for an employer with the intention that the services should not be compensated for, in a rather unusual recent case.[3] The plaintiff had entered the employ of the defendant at a time when the latter was hard pressed for workers. No arrangements for compensation were

[1] Prepared in the Office of the Solicitor, U. S. Department of Labor. The cases covered in this article represent a selection of the significant decisions believed to be of special interest. No attempt has been made to reflect all recent judicial and administrative developments in the field of labor or to indicate the effect of particular decisions in jurisdictions in which contrary results may be reached, based upon local statutory provisions, the existence of local precedents, or a different approach by the courts to the issue presented.

[2] *Robertson* v. *Alaska Juneau Gold Mining Co.* (C. C. A. 9, Nov. 5, 1946).

[3] *Rogers* v. *Schenkel* (U. S. D. C. W. D. N. Y., Oct. 23, 1946).

made, and on several occasions the plaintiff had stated that his services were voluntary, and that he would not accept any wages in any form. The court held, however, that he had been "suffered or permitted to work" and was therefore entitled to the statutory wages.

Railway Labor Act

Obligation of union to represent entire class.—Following the decision of the United States Supreme Court in *Steele* v. *Louisville and Nashville Railroad Co.*,[4] a Federal district court held [5] that a collective-bargaining agreement executed between a railroad and a union authorized under the Railway Labor Act as exclusive bargaining agent for all the firemen on the railroad, which discriminated against certain firemen on the basis of race alone, was unlawful. The contract in question divided firemen into two classes designated as "promotable" and "nonpromotable." The former included white firemen qualified for ultimate promotion to the position of engineer. The latter included all colored firemen regardless of individual qualification. Further provisions of the agreement granted priority in new jobs and the filling of vacancies to promotable firemen. The court refused to accept the union's contention that this system arose out of the railroad's rule against colored engineers, and that it therefore had no control over the situation. The court pointed out that no effort had been made by the union to urge the railroad to change this rule, indeed, all efforts had been directed at increasing its discriminatory effect. As such it was held that the union had not discharged its obligation to represent all the employees in the craft without discrimination because of their race, a duty which the Supreme Court in the *Steele* case clearly held to exist.

In another case involving the same defendant, but in a different court, a limitation was placed upon the doctrine which requires the union to represent the entire class of employees. In this case the plaintiff claimed that the union was obligated to represent him on a grievance which arose while he was a member in good standing of the union. Subsequent to the time the grievance arose, however, he had lost his status because of dissolution of his local and failure to pursue the proper course for transfer to another lodge. The court held [6] that upon such facts he could not legally look to the brotherhood for representation in the handling of his grievance.

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[4] 323 U. S. 192 (1944).

[5] *Tunstall* v. *Brotherhood of Firemen* (U. S. D. C. E. D. Va., Oct. 9, 1946).

[6] *Murphree* v. *Brotherhood of Railroad Trainmen* (Okla. S. C. Oct. 29, 1946).

Selective Training and Service Act

Breach of contract with union in order to reinstate veteran.—A Federal district court, in *Feare* v. *North Shore Bus Co.*,[7] decided that the breach by an employer of his contract with a union in order to reemploy a veteran in his former position does not render such reemployment "unreasonable." In this case the veteran, a bus driver, claimed the right to be reinstated to the particular run to which he had been assigned before his induction. To comply with this request would require violation by the employer of a contract with the union as to seniority in the assignment to runs. The court held that the statute and its interpretation by the United States Supreme Court require the conclusion that reemployment under these conditions is not an "unreasonable" situation.

Requirement that the veteran mitigate damages.—A secondary issue in the *Feare* case involved the question of whether a veteran who has been refused reemployment rights is under a duty to mitigate the damages the employer will be required to pay by seeking employment elsewhere, a duty which would be imposed in the usual contractual situation. The court in this case held that the veteran is under no such obligation. Referring to the fact that the act was designed to protect veterans against sacrifice of employment and seniority because of military service, the court said: "To hold that employers can compel such sacrifices, and then put the returned veteran to his proof of the amount by which his money loss could have been diminished, is to encourage the very thing that the act was designed to prevent."

A contrary result was reached, however, in another district court.[8] In that case the court held that the veteran was under an obligation to mitigate the damages, and the damages were reduced by the amount the veteran could have earned elsewhere for the period during which his employer had refused him reinstatement.

Reemployment rights of railroad trainee.—Relying on decisions of Federal circuit courts which have held that workers engaged by railroads as trainees for various railroad yard positions are not "employees" within the meaning of the Fair Labor Standards Act,[9] a district court recently decided [10] that veterans who were such trainees before their induction have no reemployment rights under the Selective Training and Service Act. The court argued that such rights

[7] U. S. D. C. E. D. N. Y., Oct. 15, 1946. See also Monthly Labor Review, March 1946 (p. 437) and June 1946 (p. 919).

[8] *Dodds* v. *Williams* (U. S. D. C. Ariz., Nov. 20, 1946).

[9] As for example, *Walling* v. *Nashville, Chattanooga, and St. Louis R. R.* (155 F. (2d) 1016, 1945). See Monthly Labor Review, July 1946 (p. 101).

[10] *Fields* v. *Southern Railway Company* (U. S. D. C. E. D. Tenn., Oct. 22, 1946).

require the existence of an employer-employee relationship, and no such relationship existed in the case of the trainees in question.

National Labor Relations Act

"Captive audience" doctrine.—In its first test by a circuit court of appeals, the doctrine of "captive audience" enunciated by the National Labor Relations Board was rejected. This doctrine is concerned with the question of what constitutes the type of coercive statements by employers which are forbidden by the act, and in defense of which the constitutional guaranties of free speech will not prevail. It holds that one species of such coercion arises when the employer makes a speech in opposition to a union seeking to organize his employees at a meeting which he has required his employees to attend. A speech under such circumstances had been delivered in this case,[11] and the Board maintained that this constituted coercion. The court held, however, that it did not, ruling that "the occasion on which the employer elects to utter his thoughts is not to be considered an element of coercion." It further stated that "one need not, as a condition precedent to his right of free speech under the first amendment, secure permission of his auditor."

In addition to the above ruling, the court in this case rejected another principle that has been applied by the Board in holding that the discharge of union members for refusing to process orders, believed by them to be normally intended for a plant that had been "struck" by their union, did not constitute an unfair labor practice.

Unlawful to execute closed-shop agreement with union while representation question pending.—In a case in which the employer had entered into a closed-shop agreement with one union after the Board had determined that a representation question existed, the Board held [12] that such conduct constituted unlawful interference on the part of the employer. The employer contended that the contract in question had been executed under duress in that the contracting union had threatened penalties against him. The Board rejected this argument, however, stating that the National Labor Relations Act "permits no immunity because of undue hardship or economic pressure imposed on the employer; a contrary principle would nullify the right of the employees to bargain through representatives of their own choosing."

"Premature extension" doctrine.—Two recent decisions of the National Labor Relations Board have placed important qualifications on the "premature extension" doctrine.[13] The Board, under this

[11] *National Labor Relations Board* v. *Montgomery Ward* (C. C. A. 8, Oct. 23, 1946).

[12] *In re G. W. Hume Co.* (71 NLRB No. 81, Nov. 1, 1946).

[13] This doctrine was established in the case of *In re Wichita Union Stockyards Co.* (40 NLRB No. 369, Apr. 9, 1942).

doctrine, has held that when an employer executes a new contract with a union before the operative date of an automatic renewal clause in the old contract,[14] and a rival union notifies the employer of a claim to representation after the execution of the new contract but before the "Mill B" date of the old contract, the new contract does not bar a new determination of representatives.

In the first of these cases [15] it was decided that the "premature extension" doctrine does not operate to preclude a new contract from barring a claim to representation by a rival union if that new contract was executed between the "Mill B" date and the expiration date of the old contract, and the claim to representation was received after the execution of the new contract. "On these facts," said the Board, "were we to find the new contract * * * not to be a bar we would discourage timely negotiations for continuing stable relations." It is important to note that in its opinion the Board pointed out that it was not holding that the new contract would have been a bar to an election if the rival union had notified the employer of its claim to representation before the execution of the new contract, even though such notice came after the "Mill B" date.

The second case [16] presented the further complication of a new contract executed with the existing union between the "Mill B" date and the expiration date of the old contract, which contract by its terms was not to become effective until the expiration date of the old contract. A majority of the Board (overruling previous decisions on this point) held that the execution date and not the effective date controls contract-bar questions. It then applied the reasoning of the *Northwestern Publishing Co.* case and concluded that a claim to representation received by the employer after the new contract was executed but before it was effective was barred by this new contract.

Decisions of State Courts

Wisconsin: Walk-outs to attend union meetings.—A Wisconsin circuit court recently held [17] that a walk-out of employees during working hours for the purpose of holding a union meeting, followed by the return of the employees to work on the next day, constitutes a strike within the meaning of the Wisconsin Employment Peace Act. That statute provides,[18] among other things, that it is an un-

[14] The operative date of an automatic renewal clause is the date, prior to expiration of a contract, by which any application of either party to terminate the contract must be made. This has come to be known as the "Mill B" date. (See *In re Mill B, Inc.*, 40 NLRB No. 346, Apr. 9, 1942.)

[15] *In re Northwestern Publishing Co.* (71 NLRB No. 20, Sept. 30, 1946).

[16] *In re Mississippi Lime Co., of Missouri* (71 NLRB No. 71, Oct. 30, 1946).

[17] *United Automobile Workers* v. *Wisconsin Employment Relations Board* (Wis. Cir. Ct., Milwaukee County, Oct. 18, 1946.)

[18] Wisconsin Statutes (Ch. III, sec. 111.06 2(h)).

lawful labor practice for an employee individually or in concert with others "to take possession of property of an employer or to engage in any concerted effort to interfere with production except by leaving the premises in an orderly manner for the purpose of going on strike."

In this case the union, seeking to apply pressure on the company to accede to its demands for an increase in wages, called special meetings during working hours which were attended by practically all of the production and maintenance workers. In each case the employees returned to work the next day. It was contended by the employer that this activity did not constitute a strike and hence was not a lawful interference with production because it lacked an element essential to a strike; namely, a continuation of the cessation of work until the object of the work stoppage had been achieved. After a review of the existing authorities, few of which have dealt squarely with the question of intermittent work stoppages, the court ruled that reason and public policy militate in favor of including such stoppages within the framework of the strike.

Alabama: Requirement of sufficient notice before calling strike.—In a case in which the facts indicated that a strike had been called and pickets established before the employer had had sufficient time to consider the contract submitted to him by the union, an Alabama circuit court issued an injunction against the strike and picketing.[19]

New York: Refusal to handle nonunion goods.—A lower court in New York refused to issue an injunction in a case in which union employees of soft drink manufacturers refused to load the trucks of nonunion peddlers who bought from the manufacturers, and threatened to refuse to work for manufacturers who continued to deal with nonunion peddlers. The plaintiffs petitioning for the injunction argued that this activity was not protected by the State anti-injunction statute because no "labor dispute" existed, in the light of the fact that the peddlers were "one man businesses" without employees.[20] The court held,[21] however, that even if this were true, there was nothing unlawful about the defendant's conduct, and hence no basis for the injunction even in the absence of the anti-injunction statute.

[19] *Greenwood* v. *Hotel Employees Alliance* (Alabama Cir. Ct., Sept. 27, 1946).
[20] For a case illustrating this point see Monthly Labor Review, November 1946 (p. 772).
[21] *Singer* v. *Kirsch Beverages Inc.* (N. Y. S. C. App. Div., Oct. 21, 1946.)

Prices and Cost of Living

Store Samples for Retail Food Prices [1]

To MAINTAIN the accuracy of its retail food prices, the Bureau of Labor Statistics completed another of its regular sample revisions in June 1946 and introduced some adjustments in the methods of combining the prices into averages and index numbers. The Bureau has frequently appraised its procedures and samples of stores since the collection of retail prices of food was begun in 1903, with the object of improving the quality of the data and increasing their usefulness. At present, the Bureau collects retail food prices from independent and chain retailers in each of 56 large cities during the first 4 days of the week containing the 15th of each month. All prices are reported voluntarily to local representatives of the Bureau who make personal visits to each food store at each pricing period.[2]

Samples of Food Stores

In past years, the sample of independent stores was roughly proportional to the total number of independent stores in each city, but the ratios between the number of stores in the sample and the total number of stores in the city were not the same for all cities. The stores were selected in each city in every neighborhood where wage earners and lower-salaried workers live. Between periods of sample revision, general or local, the number of stores was held constant by an immediate replacement of any store dropped from the sample.

The revision of the sample which was undertaken in September 1945 and completed in June 1946, employed a constant relationship between the total number of independent stores in the sample and the total number in the city. It included also objective methods of determining the distribution of the sample stores (1) by type of store, in terms of kinds of food sold, (2) by size of store, in terms of annual sales volume, and (3) by location within the city.

No change was made in the procedure for the selection of chain stores. It has always been the policy to obtain prices from all important chains operating in each city.

[1] Prepared by Joseph W. Lethco and John S. Middaugh of the Bureau's Consumers Prices Division under the direction of I thel D. Hoover, Chief.

[2] There are a few exceptions to this practice in the case of chain organizations which report through national, district, or local headquarters.

'INDEPENDENT STORES

The size of the sample of independent stores in each city was changed so as to be equal to the square root of the total number of independent food stores operating in the city. This relationship has an advantage over an identical sampling ratio for all cities, since the ratio necessary to obtain stable average prices for a small city is much higher than is necessary for a large metropolitan area. For example, in Butte, Mont., where there are 129 independent food stores, a 9-percent sample, or 11 stores, was deemed to be the minimum sample necessary; however, a 9-percent sample of Chicago's 8,481 independent food stores would be 763, a number wholly unnecessary for accurate measurement of either the level or trend of prices.

The total number of stores in a city was obtained from the latest and most complete lists of independent stores available. The primary sources for most cities were lists of stores, classified by type and sales volume, compiled by the local OPA boards. These lists were checked against other records available from local sources, such as salesmen's route lists compiled by newspapers and publishing houses, lists maintained by public health offices, licensing bureaus, better business bureaus, etc. The total number available from the lists for a city was compared also with the total for the year 1939, as reported by the Bureau of the Census, as a check on whether the shift in number of stores over the 6-year period appeared reasonable in view of local conditions. In general, the totals were relatively close to the Census data except for those cities having large shifts in population.

The stores included in the complete listings were then classified by type of store—groceries and combination (groceries and meats) stores, meats only, produce markets, etc.—and within each type by sales volume classes—under $50,000, $50,000 to $250,000, and over $250,000 annual sales volume.

Each city was divided into geographical areas and a further distribution of the stores was made by type and volume class within each area. The sample was confined to stores within the corporate limits of each city, except in a few cities, such as Detroit where Hamtramck (enveloped by the city of Detroit), Dearborn, and Highland Park were included, and Los Angeles where it was necessary to include all or parts of certain adjoining municipalities and to eliminate parts of the city proper which are thinly populated or not representative of the area from the standpoint of retail food distribution.

The total sales of each type and volume class by area were estimated by use of the average sales per store in each classification as determined from the Census of Business for 1939, adjusted by the percentage change in sales from 1939 to 1944.[3] These sales volume estimates

[3] This percentage change was based on sales for 1939 and 1944 as reported annually to the Bureau o. Labor Statistics by the sample of food retailers in each city.

were then converted into percentages of total sales for all independent food retailers in the city. The sample distribution by areas and for the city was calculated by applying these percentages to the total number of independent stores previously determined as the sample for the city.

The sample of stores in each area of a city was selected from the total number of stores by random sampling within type and volume class, modified by a simple device designed to reduce travel time and collection costs to a minimum without affecting the representativeness of the sample. This was accomplished by dividing the total sample for an area into groups of three stores, each store in a group located as near to the other two, geographically, as was possible within the sample pattern. After dividing the total sample for an area by 3 to determine the number of groups of three stores or less into which the sample for the area was to be concentrated, one store in each group was selected at random from the list of stores sorted by type and volume class and termed the "primary unit." To facilitate the grouping of stores in threes, the primary units were selected from the least prevalent type and volume class to be represented in the sample for the area, with the two remaining stores of the types and classes specified within each group, selected as close geographically as possible to the primary unit. For example, if the calculated sample for one area in a city was as follows—

	Number of stores
Total independent stores	8
Grocery and combination	6
Class I (annual sales: Less than $50,000)	3
Class II (annual sales: $50,000–$250,000)	2
Class IV (annual sales: $250,000 or more)	1
Meat markets	2
Class I (annual sales: Less than $50,000)	2

three groups were set up—two groups of 3 stores each and one group of 2 stores. Selecting the least prevalent type and class, a supermarket (class IV combination store) and two class I meat markets were used as primary units. These primary units were drawn at random from the lists of those types and classes of stores in the area. After the managers of these stores agreed to furnish prices regularly to the Bureau, additional units within the sample pattern were selected as near to the primary unit as possible and, if feasible, along the best transportation route to the next primary unit. Thus, a class I grocery or combination store was selected near the supermarket designated as a primary unit; and a class II and class I grocery or combination near each of the class I meat markets designated as primary units. Insofar as was consistent with the sampling pattern,

stores that had been reporting prices regularly to the Bureau for a number of years were retained.

The revised independent store sample in each city brings up to date the representation of each type and class of store in proportion to its relative importance in total food sales of independent stores in the city. Some of the types, such as fresh fruit and vegetable stores, had not been represented adequately in the former samples for a few cities. The size of the independent store sample was increased for 50 of the 56 cities and decreased for 6 cities. The changes in the sample vary from only minor adjustments in some cities to major changes in others. For example, in Boston the new sample constitutes a major revision as shown by the following:

Store type and annual sales volume	*Number of independent stores in—*	
	Old sample	*New sample*
Grocery and combination:		
Less than $50,000	6	20
$50,000–$250,000	9	15
$250,000 and over	3	2
Meat markets:		
$50,000–$250,000	0	5
Fruits and vegetables:		
Less than $50,000	0	1

In Washington, D. C., the sample of independent stores was reduced from 40 to 35 stores, with only minor changes in type and volume class.

A minimum number of foods on which prices were to be reported by each store was specified, based on the type of foods sold, with the result that the number of quotations for each food in a city was usually increased by a much greater ratio than the number of stores in the sample was enlarged. For example in one city a 10-percent increase in the number of stores was accompanied by a 45-percent increase in the total number of prices reported.

CHAIN STORES

The method of obtaining chain store representation was not changed; that is, every important food chain that was willing to report prices regularly was included in the city sample. At the time the independent store sample was reviewed the list of chain stores was also checked and some additions were made to the chain sample for certain cities.

One schedule of prices is collected from each chain organization reporting for a city (two schedules if the firm operates both supermarkets and service stores and there are any price differentials between the two types). Collection of prices from a number of outlets of the same chain proportional to its importance in the total chain sales in the city would result in a large sample and greatly increased collection costs. Such procedure is not necessary to secure reliable average

prices, since outlets of the same chain organization generally sell foods at approximately the same prices throughout the city.[4]

Changes in Data Processing

The Bureau also made changes in some phases of the summarization of prices collected in addition to revisions of store samples. These changes were first used in February 1946 with a recomputation of January summaries for comparability. Average prices were affected in varying degrees, but there was no immediate effect on indexes used for measuring trends.

SALES TAXES

The most important change in summarization was made in the method of reflecting State and local sales taxes which are applicable to foods sold at retail in 16 of the 56 cities regularly surveyed by the Bureau. Prior to February 1946, sales taxes were included in average prices published by the Bureau as well as in the indexes of prices. Beginning in February all indexes of retail food prices reflected the tax levies and changes in sales tax rates as in the past. Average prices for the individual foods in each city, however, were computed without adding the amount of sales tax.

The primary reason for changing the method of handling sales taxes was that these taxes are usually collected on the total purchase made by an individual at any one time rather than on each individual item. Also, the average consumer does not think of the price quotation for a single article as including tax. Therefore, from a practical standpoint it appeared best to publish average prices and ranges of prices without taxes, and to continue to reflect tax changes in the total food costs used for the computation of the indexes.

COMBINATION OF CHAIN AND INDEPENDENT STORE QUOTATIONS

In computing average prices for each food in a given city, recognition must be given to the relative importance of sales of an individual food store to total volume of sales for all food stores in the city. Obviously, prices from a supermarket with an annual sales volume of $600,000 should be given more weight in an average than a grocery with annual sales of $25,000. Thus, it is necessary to use a system of weights which will maintain the proper ratio between prices from each type of independent store and each chain organization and at the same time maintain the ratio between total sales volume of all independents and total sales volume of all chains.

Prior to February 1946 the Bureau accomplished this by developing weights for each food for each store. Prices from each independent

[4] See An Appraisal of the U. S. Bureau of Labor Statistics' Cost of Living Index: Appendix, Prepared for a Special Committee of the American Statistical Association, in Journal of the American Statistical Association, March 1944, Vol. 39 (p. 70).

store were given a weight of 1 and were thus weighted implicitly, since the number of stores in the sample in each sales volume group was roughly proportional to the total number in that group, as reported by the Bureau of the Census.

The total weight for all chain store quotations was calculated so that it would bear the same ratio to the total of independent quotations that the total food sales by chains in that city bore to the total sales by independents, as determined from the latest available data from the Bureau of the Census, merchants associations, and any other reliable sources. The weighting factors for each of the reporting chains were based on the sales volume of each chain, and adjusted to the total chain weight required for the city. The following example illustrates the procedure used prior to February 1946. In city A, chain stores made 40 percent and independent stores made 60 percent of the food sales. The sample for city A consisted of 18 independent stores and 4 chain organizations, the 4 chains having annual sales of 10, 6, 4, and 4 million dollars, respectively. An average price was obtained as follows:

1. Each independent store was given a weight of 1, making a total independent weight of 18.
2. The total of all chain store weights was computed by multiplying 18 by 4/6, the ratio of chain store sales to independent store sales, resulting in a total chain weight of 12.
3. The total chain weight was then distributed among the four chains in proportion to their individual sales volumes.

	Annual sales		
	Dollars (in millions)	*Percent of total*	*Weight*
Chain A	10	41	5
Chain B	6	25	3
Chain C	4	17	2
Chain D	4	17	2
Total, 4 chains	24	100	12

4. Each price quotation was weighted by the factor assigned to the store or firm reporting.
5. The sum of the weighted prices was divided by the sum of the weighting factors to produce the average price for the food item for the city.

This method of weighting maintains the relative importance of each quotation in the average as long as all stores in the sample report prices for a specified food. However, during periods of short supplies it was not possible to obtain the same number of quotations at every collection date and, as the ratio between the number of chain and independent quotations varied, the chain-independent ratio was distorted in varying degrees. For example, in the illustration above: So long as 18 independents and 4 chains reported prices for bacon, the ratio was maintained. However, if only 12 independents quoted prices for bacon while all 4 chains continued to report, the ratio of

chain-independent reports for bacon automatically became 12 to 12 or 50–50, instead of 40 to 60 percent, as previously determined to be the correct ratio.

In February 1946, the procedure was changed. A separate average was computed for independent stores and for chain stores and the two averages combined by use of the chain-independent ratio to arrive at an average price for the city. Thus, the relative importance of sales by each type of organization is maintained, regardless of variations in the number of quotations reported. Each independent store quotation was given a weight of 1 as before, since the number of independents in the sample for a given sales volume group is proportional to the total sales of independents of that group in the city and therefore the independent quotations are weighted implicitly. Weighting factors for chains were determined as before, except that the factors used were the percentages of total sales. An average price for a specified food is now computed by the following steps:

1. An average price for independent stores is computed by dividing the sum of the independent quotations by the number of independent quotations.
2. An average price for chain stores is computed by multiplying each quotation by a weighting factor assigned to that chain, summing the weighted quotations, and dividing by the sum of the weights.
3. An average price for the city is computed by combining the independent and chain averages (steps 1 and 2), weighting each by the percentage of total food sales in the city made by that type of store, and dividing the sum by 100.

EDITING PROCEDURES

Prior to February 1946, a price was used only if it was for the identical size, grade, and brand of the article quoted the preceding month by the same store, with the exception of meats, fresh fruits and vegetables, and certain canned goods. If no price was quoted for a given article, either for the current or the preceding month, an adjustment was made in the food cost aggregates for comparability before computing the indexes. This procedure was time-consuming and often resulted in a reduction in the number of quotations used to compute average prices and indexes. Under new procedures, all price quotations for articles which meet the specifications are used, thus greatly reducing the costs of processing.

AVERAGE PRICES FOR 56 CITIES COMBINED

No changes were made in the method of combining averages for the various cities into averages for 56 cities combined. The average price in each city is weighted by a factor representing the population of the metropolitan area of the city and of other cities in the same region and size class.

Changes in Quantity Weighting Factors

The last major revision of the indexes of retail food prices was made in March 1943, when in addition to other adjustments the quantity-weighting factors used in combining prices to compute index numbers were revised to take into account wartime consumption patterns.[5] In February 1946, the quantity weights were readjusted to eliminate most of the previous changes since the current average per capita consumption for most foods, as estimated by the Department of Agriculture, approximates the average for the period 1935 through 1939. Weights were reduced for cereals and bakery products, pork, chicken, milk, eggs, lard, oleomargarine, and peanut butter. Weights were increased for beef, lamb, fish, butter, canned and dried fruits and vegetables, tea, coffee, shortening, sugar, and sweets. Weights for some fresh fruits and vegetables were increased, others decreased. In general, the new weights represent the consumption pattern for moderate-income families as determined by the Bureau's surveys of consumer expenditures in 1934–36, with minor adjustments to take care of 7 foods added in March 1946.[6]

Table 1 shows the percentage of the index represented by each component food for January 1946, as originally computed with the wartime weights and as computed with the new quantity weights. The relative importance of the individual foods in the base period, 1935–39, has been included for comparison.[7]

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[5] For a complete description of all the changes made in March 1943, see Monthly Labor Review, July 1943—Bureau of Labor Statistics Cost of Living Index in Wartime; and also LS 43-5481 (mimeographed)—Description of Changes in the BLS Cost of Living Index as of March 15, 1943.

[6] The quantity weights for these foods had been assigned to others having similar price characteristics during the period January 1935 through February 1943, and the separation of their weights at that time made a difference in the weights of foods to which they had been assigned. These 7 foods have been retained in the index.

[7] The relative importance of a food in the index must not be confused with the quantity weights, as the former is derived from the relationship of the price aggregates for individual foods to the total price aggregate for all foods. The price aggregate for a food is the product of quantity weight times price for that period, and therefore is a function of price, varying as the trend of prices for that article varies from the average trend for all foods combined. Differences in the relative importance for the various foods in January 1946, revised, and the base period are primarily due to the price variable. Because of space limitations the quantity weights cannot be printed with this article, as there is a separate quantity-weighting factor for each food in each of the cities included in the index.

TABLE 1.—*Relative importance of individual foods in the retail food price index*

Percentage distribution for January 1946 as computed with original and revised quantity weights and for base period, 1935–39

Commodity	Percentage distribution in—		
	January 1946 as computed with—		1935–39 average
	Original quantity weight	Revised quantity weight	
All foods	**100.0**	**100.0**	**100.0**
Cereals and bakery products	**14.1**	**13.1**	**15.6**
Cereals:			
Flour, wheat	1.8	1.9	1.8
Macaroni	.9	.7	1.0
Corn flakes	1.1	.6	1.4
Corn meal	.3	.4	.3
Rolled oats	.5	.6	(1)
Bakery products:			
Bread, white	5.6	5.3	6.7
Bread, whole wheat	.7	.7	.8
Bread, rye	1.0	.9	1.2
Vanilla cookies	1.7	1.5	1.8
Soda crackers	.5	.5	.6
Meats	**26.6**	**26.2**	**28.2**
Beef:			
Round steak	2.5	2.9	3.8
Rib roast	3.0	2.7	4.6
Chuck roast	1.2	1.2	1.7
Liver	.6	.8	(1)
Hamburger	.9	1.3	(1)
Veal: Cutlets	1.2	1.4	1.9
Pork:			
Chops	2.9	2.7	3.5
Bacon, sliced	1.6	1.6	1.9
Ham, sliced	.8	.7	(1)
Ham, whole	1.2	1.2	2.2
Salt pork	.3	.3	.3
Lamb:			
Leg	1.0	1.2	1.2
Rib chops	1.0	1.2	1.3
Poultry: Roasting chickens	5.6	3.4	3.3
Fish:			
Fish (fresh, frozen)	2.4	2.8	1.7
Salmon, pink	.4	.8	.8
Dairy products	**18.9**	**18.6**	**19.1**
Butter	4.5	5.9	5.4
Cheese	1.6	1.5	1.6
Milk, fresh (delivered)	8.3	7.3	8.7
Milk, fresh (grocery)	3.4	2.9	2.4
Milk, evaporated	1.1	1.0	1.0
Eggs, fresh	**7.3**	**6.7**	**5.5**
Fruits and vegetables	**25.9**	**26.7**	**21.6**
Fresh	21.8	21.7	16.5
Apples	3.7	4.0	2.1
Bananas	.5	1.8	1.4
Oranges	5.5	3.6	3.4
Beans, green	1.4	1.3	.8
Cabbage	.6	.8	.7
Carrots	1.1	1.1	.9
Lettuce	1.3	1.5	1.7
Onions	1.5	1.5	1.1
Potatoes	4.6	4.3	3.2
Spinach	.9	1.1	.8
Sweetpotatoes	.7	.7	.4
Canned	3.1	3.7	4.1
Peaches	.3	.5	.6
Pineapple	.1	.4	.4
Grapefruit juice	.4	.1	(1)
Beans, green	.2	.2	(1)
Corn	.5	.6	.7
Peas	.6	.5	.9
Tomatoes	1.0	1.4	1.5
Dried	1.0	1.3	1.0
Prunes	.5	.8	.6
Navy beans	.5	.5	.4

See footnotes at end of table.

TABLE 1.—*Relative importance of individual foods in retail food price index*—Continued

Percentage distribution for January 1946 as computed with original and revised quantity weights and for base period, 1935–39—Continued

Commodity	Percentage distribution in—		
	January 1946 as computed with—		1935–39 average
	Original quantity weight	Revised quantity weight	
Beverages	**1.6**	**2.6**	**3.4**
Coffee	1.4	2.4	2.6
Tea	.2	.2	.8
Fats and oils	**3.5**	**3.1**	**3.2**
Lard	1.3	1.0	1.1
Shortening other than lard			.7
In cartons	.2	.2	(2)
In other containers	.3	.5	(2)
Salad dressing	.8	.8	.9
Oleomargarine	.5	.3	.3
Peanut butter	.4	.3	.2
Sugar and sweets	**2.1**	**3.0**	**3.4**
Sugar	1.5	2.8	3.4
Corn sirup	.6	.2	(1)

[1] Not included in the index. [2] Not given separately.

Effects of the Changes

Revised store samples were incorporated into the index city by city as they were completed. All the changes in procedures were introduced simultaneously in February 1946, with prices for January recomputed in accordance with the new methods. The four changes which affected average prices in individual cities were (A) Revisions of food store samples; (B) Elimination of State and local taxes from average prices; (C) Changes in methods of combining quotations; and (D) Changes in editing procedures.

The results of the introduction of these new procedures are illustrated in table 2, which shows differences between average prices in Seattle, Wash., for January 1946 recomputed by introducing each one of the new procedures separately and average prices for Seattle as originally computed for January 1946.

The effect of these changes is minor in character except for a relatively few foods. With the exception of the differences resulting from elimination of sales taxes, about three-fourths of the average prices were not changed or were changed by 0.5 cent or less. Even when the obvious reductions in average prices caused by the removal of sales taxes are taken into account, prices for 40 of the 77 foods remained unchanged or differed by 0.5 cent or less from the January averages computed before the revisions. The relatively small differences are due, in part, to the small units of quantity on which prices are reported. The price of 15 pounds of potatoes, however, the

largest single price in the list of foods, had a net decrease of only 1.1 cents from the former average of 71.3 cents, and the changes resulting from each element of the revised procedures, except tax elimination, were less than 1 cent. Differences in average prices for the 40 cities in which no sales taxes are in effect were smaller than in Seattle.

TABLE 2.—*Distribution of differences between average prices for Seattle as originally published, and average prices for Seattle resulting from sample revision and from each phase of revised procedures, January 1946*

Range of differences	Number of foods with price differences due to the effect of—				
	Revised sample	Elimination of sales taxes	New methods of combining chains and independents	Change in editing procedures	All phases combined [1]
−2.1 cents or more	3	1	1	0	9
−1.1 to −2.0 cents	3	7	2	0	10
0.6 to −1.0 cents	3	39	3	3	15
0.1 to −0.5 cents	19	30	10	19	27
No change	13	0	28	28	4
+0.1 to +0.5 cent	25	0	28	14	9
+0.6 to +1.0 cents	4	0	3	7	0
+1.1 to +2.0 cents	4	0	2	3	1
+2.1 cents or more	2	0	0	2	2

[1] Since the same article of food did not necessarily fall within the same range of differences in all four cases, figures in the first four columns are not additive to arrive at the number in the last column. For various reasons, not all foods priced could be included in all comparisons.

The net effect of all these changes was less in the averages for the 56 cities combined than for the individual cities. The differences between the revised and original average prices were all less than 10 percent of the original. For 18 of the 78 foods priced, there was no difference between the original and revised January averages; revised prices were higher for 36 of the foods and lower for 24 of them. For more than half of the 60 foods for which differences in prices occurred, the amount of the difference was 0.3 cent or less. The revised average prices for January for each of the 56 cities and for all cities combined are published in the Bureau's monthly release Retail Food Prices by Cities, February 1946.

The changes in the levels of prices resulting from revised samples and procedures were treated so as not to affect the levels of the indexes of retail prices of foods or the consumers' price index. The new prices and weights were introduced into the index by a linking process so that the indexes constitute continuous series and may be used for the study of time trends in food prices at retail.

Index of Consumers' Prices in Large Cities, November 1946[1]

RETAIL prices of consumer goods in large cities rose 2.2 percent between mid-October and mid-November, bringing the consumers' price index for the United States to the highest level on record. On November 15 the index was 151.7 (1935–39 equals 100), 1.5 percent higher than in June 1920, the peak after World War I.

In mid-November consumers' prices were 13.8 percent higher than on June 15, 1946, and 53.9 percent higher than in August 1939. In the year between November 1945 and November 1946 food prices rose 34 percent, clothing 13 percent, and housefurnishings 15 percent. Residential rents, however, advanced only slightly, and gas and electricity costs declined about 2 percent.

Retail food prices to moderate-income families in large cities advanced 4.3 percent between mid-October and mid-November. Higher prices were reported for all major food groups except eggs and dairy products, but sharp increases in prices of fats and oils, meats, and fruits and vegetables were chiefly responsible for this advance. Average retail prices of fats and oils rose 65 percent, as prices for lard increased 104 percent, shortening 66 to 85 percent, and oleomargarine 56 percent. Meat, poultry, and fish averaged 9.1 percent higher in

[1] The "consumers' price index for moderate-income families in large cities," formerly known as the "cost of living index," measures average changes in retail prices of selected goods, rents and services, weighted by quantities bought by families of wage earners and moderate-income workers in large cities in 1934–36. The items priced for the index constituted about 70 percent of the expenditures of city families whose incomes averaged $1,524 in 1934–36.

The index only partially shows the wartime effects of changes in quality, availability of consumer goods, etc. The President's Committee on the Cost of Living has estimated that such factors, together with certain others not fully measured by the index, would add a maximum of 3 to 4 points to the index for large cities between January 1941 and September 1944. If account is taken of continued deterioration of quality and disappearance of low-priced merchandise between September 1944 and September 1945, which was estimated at an additional ½ point, the total large-city adjustment would be 4½ points. If small cities were included in the national average, another ½ point would be added, making the total approximately 5 points.

The indexes in the accompanying tables are based on time-to-time changes in the cost of goods and services purchased by wage earners and lower-salaried workers in large cities. They do not indicate whether it costs more to live in one city than in another. The data relate to the 15th of each month, except those for January 1941, in tables 1 and 2. They were estimated for January 1, 1941, the base date for determining allowable "cost of living" wage increases under the Little Steel formula and under the wage-price policy of February 1946. January 1, 1941, indexes in tables 1 and 2 have been estimated by assuming an even rate of change from December 15, 1940, to the next pricing date.

Food prices are collected monthly in 56 cities during the first 4 days of the week which includes the Tuesday nearest the 15th of the month. Aggregate costs of foods in each city, weighted to represent food purchases of families of wage earners and lower-salaried workers, have been combined for the United States with the use of population weights. In March 1943, the number of cities included in the food index was increased from 51 to 56, and the number of foods from 54 to 61. Prices of clothing, housefurnishings, and miscellaneous goods and services are obtained in 34 large cities in March, June, September, and December. In intervening months, prices are collected in 21 of the 34 cities for a shorter list of goods and services. Rents are surveyed semiannually in most of the 34 cities (in March and September, or in June and December). In computing the all-items indexes for individual cities and the rent index for the average of large cities, because of the general stability of average rents at present, the indexes are held constant in cities not surveyed during the current quarter. Prices for fuel, electricity, and ice are collected monthly in 34 large cities.

mid-November than in mid-August.[2] Fresh fruits and vegetables advanced seasonally 2 percent, while canned and dried fruits and vegetables rose 8 and 27 percent, respectively. Egg prices dropped 6 percent to an average of 70 cents per dozen. Butter prices declined 7.7 cents per pound from an all-time high average of 96 cents in mid-October.

Clothing prices increased 1.0 percent on the average, as higher prices were reported for nearly every type of apparel. In mid-November, higher price tags were found on men's suits, broadcloth shirts, cotton work clothing, undergarments, and socks, than in mid-October. Prices for women's cotton dresses and gloves were also consistently higher in mid-November. The cost of leather footwear for all members of the family rose during the month and shoe repairs were also generally higher.

Average retail costs of housefurnishings and miscellaneous goods and services increased 0.9 percent each between October and November. Prices for sewing machines, vacuum cleaners, electric refrigerators, stoves, felt base floor covering, mattresses, cotton sheets, and blankets rose in most cities. Bedroom and living-room suites advanced in some cities and declined in others. The increase in the cost of miscellaneous goods and services was due primarily to higher prices for cigarettes, cigars, gasoline, beauty shop services, and newspapers. New automobile prices also rose during the month.

Fuel, electricity, and ice costs rose 0.3 percent on the average. Retail coal prices advanced somewhat in 17 cities. Electricity costs declined 5 and 7 percent in Portland, Oreg., and Portland, Maine, as lower rates became effective. A rebate was allowed to consumers of gas in Detroit.

Rents were not surveyed in November.

[2] In a number of cities in September and October the Bureau was not able to obtain an adequate number of price quotations for some meats because of the severe shortage. For those meats in the cities where an adequate number of prices could not be collected during these months, prices were held unchanged at August levels to allow the computation of the index. For meats in the cities where an adequate sample of prices could be obtained, prices in September and October were compared directly with prices for the last month in which sufficient quotations were secured to compute a reliable meat index. The November index, based on the usual number of quotations, reflects the correct level of prices, and the full price change that occurred from mid-August to mid-November.

TABLE 1.—*Indexes of consumers' prices for moderate-income families and percent changes, November 15, 1946, compared with earlier periods*

Group	Nov. 15, 1946	Oct. 15, 1946	Nov. 15, 1945	Aug. 15, 1945	Jan. 1, 1941	Aug. 15, 1939
	This month	Last month	Year ago	VJ-day	Wage base date	Month before war in Europe
	Indexes (1935-39=100)					
All items	151.7	148.4	129.3	129.3	100.8	98.6
Food	187.7	180.0	140.1	140.9	97.6	93.5
Clothing	168.7	167.0	148.7	146.4	101.2	100.3
Rent					105.0	104.3
Fuel, electricity, and ice	114.7	114.4	110.1	111.4	100.8	97.5
Gas and electricity	91.8	91.6	94.0	95.2	97.5	99.0
Other fuels and ice	137.0	136.5	125.8	127.2	104.0	96.3
Housefurnishings	169.1	167.6	147.6	146.0	100.2	100.6
Miscellaneous	132.0	130.8	124.6	124.5	101.8	100.4
	Percent change to Nov. 15, 1946					
All items		2.2	17.3	17.3	50.5	53.9
Food		4.3	34.0	33.2	92.3	100.7
Clothing		1.0	13.4	15.2	66.7	68.2
Rent [1]					3.6	4.3
Fuel, electricity, and ice		.3	4.2	3.0	13.8	17.6
Gas and electricity		.2	−2.3	−3.6	−5.8	−7.3
Other fuels and ice		.4	8.9	7.7	31.7	42.3
Housefurnishings		.9	14.6	15.8	68.8	68.1
Miscellaneous		.9	5.9	6.0	29.7	31.5

[1] Percent change to Sept. 15, 1946.

TABLE 2.—*Percent increase in consumers' price index from specified dates to November 15, 1946, by cities*

City	Oct. 15, 1946	Nov. 15, 1945	Aug. 15, 1945	Jan. 1, 1941	Aug. 15, 1939
	Last month	Year ago	VJ-day	Wage base date	Month before war in Europe
Average	2.2	17.3	17.3	50.5	53.9
Baltimore, Md	2.5	17.1	16.4	53.3	56.4
Birmingham, Ala	4.9	18.5	17.7	55.1	60.0
Boston, Mass	.9	17.0	16.0	47.1	50.2
Buffalo, N. Y	2.1	15.4	15.4	46.5	51.6
Chicago, Ill	1.9	19.4	18.9	50.3	54.1
Cincinnati, Ohio	4.4	18.2	18.2	53.4	57.0
Cleveland, Ohio	2.7	16.2	16.0	50.3	53.3
Denver, Colo	5.7	19.4	18.6	51.4	53.5
Detroit, Mich	2.0	15.8	15.6	50.2	54.0
Houston, Tex	3.8	17.6	17.3	46.5	48.4
Kansas City, Mo	3.0	14.8	14.7	48.7	48.4
Los Angeles, Calif	4.0	15.9	17.6	50.3	53.3
Minneapolis, Minn	1.7	18.0	18.7	45.6	48.6
New York, N. Y	.8	17.9	18.3	52.3	55.4
Philadelphia, Pa	1.7	17.5	17.3	51.8	54.0
Pittsburgh, Pa	2.8	17.8	17.6	51.3	55.6
St. Louis, Mo	2.4	18.3	17.6	48.5	52.9
San Francisco, Calif	3.7	18.0	19.7	55.8	59.7
Savannah, Ga	4.2	17.3	16.8	59.4	62.7
Seattle, Wash	2.2	16.7	16.7	51.9	54.6
Washington, D. C	1.7	15.7	16.2	49.9	51.9

TABLE 3.—*Percent change in consumers' price index, Oct. 15 to Nov. 15, 1946, by cities and groups of items*

City	All items	Food	Clothing	Fuel, electricity, and ice			House-furnishings	Miscellaneous
				Total	Gas and electricity	Other fuels and ice		
Average	2.2	4.3	1.0	0.3	0.2	0.4	0.9	0.9
Atlanta, Ga.		8.2		1.9	.1	2.7		
Baltimore, Md.	2.5	4.8	.5	0	0	0	2.4	1.0
Birmingham, Ala.	4.9	11.2	−.3	.3	0	.4	1.2	1.2
Boston, Mass.	.9	1.9	−.2	.3	1.1	0	−.4	.3
Buffalo, N. Y.	2.1	4.2	1.2	1.3	0	2.1	.9	.6
Chicago, Ill.	1.9	3.3	1.2	.1	0	.1	1.2	1.3
Cincinnati, Ohio	4.4	9.2	2.0	0	0	0	1.0	1.4
Cleveland, Ohio	2.7	5.5	1.0	0	0	0	1.4	1.5
Denver, Colo.	5.7	12.4	3.0	.5	0	.8	1.0	.2
Detroit, Mich.	2.0	4.4	1.3	.1	0	.1	.9	.6
Houston, Tex.	3.8	8.8	.6	6.0	0	18.5	.2	1.2
Indianapolis, Ind.		6.5		0	0	.1		
Jacksonville, Fla.		9.1		0	0	0		
Kansas City, Mo.	3.0	6.8	.5	.6	0	.9	.8	1.5
Los Angeles, Calif.	4.0	8.4	.9	0	0	0	1.8	1.2
Manchester, N. H.		4.9		.1	.3	0		
Memphis, Tenn.		8.5		0	0	.2		
Milwaukee, Wis.		5.3		0	.1	0		
Minneapolis, Minn.	1.7	2.3	2.6	1.0	0	1.4	1.2	1.7
Mobile, Ala.		6.0		.1	0	0		
New Orleans, La.		5.8		0	0	0		
New York, N. Y.	.8	1.0	1.4	.3	.5	−.1	1.0	.4
Norfolk, Va.		4.1		0	0	0		
Philadelphia, Pa.	1.7	3.1	.7	−.1	0	−.2	.8	.8
Pittsburgh, Pa.	2.8	5.1	2.4	0	0	0	.4	1.0
Portland, Maine		3.1		−1.1	−4.5	.1		
Portland, Oreg.		6.0		−1.6	−3.0	−.8		
Richmond, Va.		7.0		0	0	0		
St. Louis, Mo.	2.4	4.5	.7	0	0	0	.7	1.4
San Francisco, Calif.	3.7	7.2	1.0	0	0	0	1.8	1.0
Savannah, Ga.	4.2	8.9	−.1	.2	0	.2	1.4	.7
Scranton, Pa.		1.7		0	0	0		
Seattle, Wash.	2.2	4.6	1.2	0	0	0	−.4	.5
Washington, D. C.	1.7	3.4	.9	−.3	0	−.4	1.8	.8

TABLE 4.—*Indexes of consumers' prices for moderate-income families in large cities, 1935 to November 1946*

Year and month	Indexes (1935-39=100) of cost of—						
	All items	Food	Clothing	Rent	Fuel, electricity, and ice	House-furnishings	Miscellaneous
1935	98.1	100.4	96.8	94.2	100.7	94.8	98.1
1936	99.1	101.3	97.6	96.4	100.2	96.3	98.7
1937	102.7	105.3	102.8	100.9	100.2	104.3	101.0
1938	100.8	97.8	102.2	104.1	99.9	103.3	101.5
1939	99.4	95.2	100.5	104.3	99.0	101.3	100.7
1940	100.2	96.6	101.7	104.6	99.7	100.5	101.1
1941	105.2	105.5	106.3	106.2	102.2	107.3	104.0
1942	116.5	123.9	124.2	108.5	105.4	122.2	110.9
1943	123.6	138.0	129.7	108.0	107.7	125.6	115.8
1944	125.5	136.1	138.8	108.2	109.8	136.4	121.3
1945	128.4	139.1	145.9	108.3	110.3	145.8	124.1
1945:							
Jan. 15	127.1	137.3	143.0	(1)	109.7	143.6	123.3
Feb. 15	126.9	136.5	143.3	(1)	110.0	144.0	123.4
Mar. 15	126.8	135.9	143.7	108.3	110.0	144.5	123.6
Apr. 15	127.1	136.6	144.1	(1)	109.8	144.9	123.8
May 15	128.1	138.8	144.6	(1)	110.0	145.4	123.9
June 15	129.0	141.1	145.4	108.3	110.0	145.8	124.0
July 15	129.4	141.7	145.9	(1)	111.2	145.6	124.3
Aug. 15	129.3	140.9	146.4	(1)	111.4	146.0	124.5
Sept. 15	128.9	139.4	148.2	108.3	110.7	146.8	124.6
Oct. 15	128.9	139.3	148.5	(1)	110.5	146.9	124.7
Nov. 15	129.3	140.1	148.7	(1)	110.1	147.6	124.6
Dec. 15	129.9	141.4	149.4	108.3	110.3	148.3	124.8
1946:							
Jan. 15	129.9	141.0	149.7	(1)	110.8	148.8	125.4
Feb. 15	129.6	139.6	150.5	(1)	111.0	149.7	125.6
Mar. 15	130.2	140.1	153.1	108.4	110.5	150.2	125.9
Apr. 15	131.1	141.7	154.5	(1)	110.4	152.0	126.7
May 15	131.7	142.6	155.7	(1)	110.3	153.7	127.2
June 15	133.3	145.6	157.2	108.5	110.5	156.1	127.9
July 15	141.2	165.7	158.7	(1)	113.3	157.9	128.2
Aug. 15	144.1	171.2	161.2	108.7	113.7	160.0	129.8
Sept. 15	145.9	174.1	165.9	108.8	114.4	165.6	129.9
Oct. 15	148.4	180.0	167.0	(1)	114.4	167.6	130.8
Nov. 15	151.7	187.7	168.7	(1)	114.7	169.1	132.0

[1] Rents not surveyed in this month.

Retail Prices of Food in November 1946

RETAIL prices of food in November 1946 in relation to those in selected preceding periods are shown in the accompanying tables.

TABLE 1.—*Percent of change in retail prices of food in 56 large cities combined, by commodity groups, in specified periods*

Commodity group	Oct. 15, 1946, to Nov. 15, 1946	Nov. 15, 1945, to Nov. 15, 1946	Aug. 15, 1945, to Nov. 15, 1946	Jan. 15, 1941, to Nov. 15, 1946 [1]	Aug. 15, 1939, to Nov. 15, 1946
All foods	+ 4.3	+34.0	+33.2	+91.9	+100.7
Cereals and bakery products	+1.5	+28.9	+28.9	+48.2	+50.5
Meats	[2] +6.8	+55.4	+54.5	+101.4	+112.7
Beef and veal	[2] +9.4	+61.6	+61.2	+74.6	+91.8
Pork	[2] +13.5	+83.9	+83.9	+140.5	+135.3
Lamb	[2] +9.4	+50.8	+50.6	+108.1	+107.9
Chickens	−16.2	+23.9	+20.1	+94.3	+99.7
Fish, fresh and canned	+6.1	+20.0	+21.7	+123.3	+166.1
Dairy products	−1.9	+46.1	+48.8	+88.9	+113.2
Eggs	−6.1	+4.9	+17.6	+107.0	+122.3
Fruits and vegetables	+4.5	+7.1	+.5	+97.7	+99.7
Fresh	+2.0	+.2	−7.1	+95.2	+96.4
Canned	+8.5	+28.4	+28.7	+83.5	+83.1
Dried	+26.6	+49.3	+49.2	+152.6	+178.6
Beverages	+.8	+34.3	+34.6	+84.6	+76.8
Fats and oils	+65.2	+96.4	+97.0	+204.2	+189.1
Sugar and sweets	+1.8	+34.8	+34.7	+78.9	+78.3

[1] The wage formulas apply to Jan. 1, 1941. Jan. 15, 1941, is the nearest date for which data on retail prices of individual foods have been computed.

[2] The index now reflects fully the current level of prices for meats as well as the entire price change that occurred since mid-August 1946. Most meat prices in the intervening months were held unchanged from August levels for those cities where an adequate number of quotations was not obtained because of the severe meat shortage. In other cities prices for some meats were compared directly with the nearest preceding month for which a sufficient number of quotations were secured.

TABLE 2.—*Indexes of retail prices of food in 56 large cities combined,*[1] *by commodity groups, on specified dates*

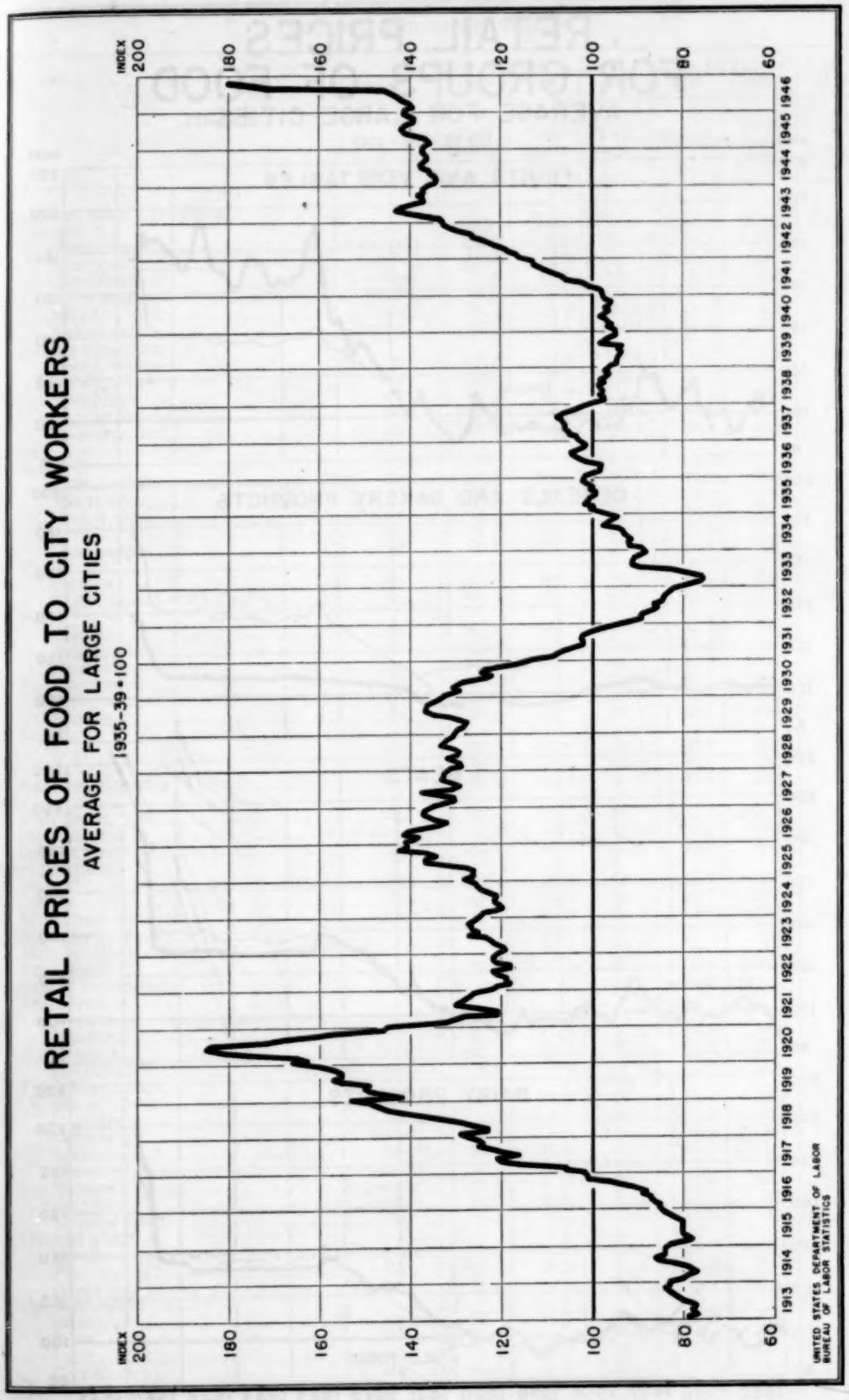
[1935-39=100]

Commodity group	Nov. 15 1946	Oct. 15 1946	Nov. 15 1945	Aug. 15 1945	Jan. 15 1941 [2]	Aug. 15 1939
	This month	Last month	Year ago	VJ-day	Wage base date [2]	Month before war in Europe
All foods	[3] 187.7	[3] 180.0	140.1	140.9	97.8	93.5
Cereals and bakery products	140.6	138.5	109.1	109.1	94.9	93.4
Meats	[3] 203.6	[3] 190.7	131.0	131.8	101.1	95.7
Beef and veal	[3] 191.0	[3] 174.6	118.2	118.5	109.4	99.6
Pork	[3] 207.1	[3] 182.4	112.6	112.6	86.1	88.0
Lamb	[3] 205.4	[3] 187.7	136.2	136.4	98.7	98.8
Chickens	188.9	225.3	152.5	157.3	97.2	94.6
Fish, fresh and canned	265.0	249.7	220.8	217.8	118.7	99.6
Dairy products	198.5	202.4	135.9	133.4	105.1	93.1
Eggs	201.6	214.6	192.1	171.4	97.4	90.7
Fruits and vegetables	184.5	176.5	172.3	183.5	93.3	92.4
Fresh	182.3	178.8	181.9	196.2	93.4	92.8
Canned	167.7	154.6	130.6	130.3	91.4	91.6
Dried	251.6	198.7	168.5	168.6	99.6	90.3
Beverages	167.8	166.5	124.9	124.7	90.9	94.9
Fats and oils	244.3	147.9	124.4	124.0	80.3	84.5
Sugar and sweets	170.5	167.5	126.5	126.6	95.3	95.6

[1] Aggregate costs of 61 foods in each city, weighted to represent total purchases by families of wage earners and lower-salaried workers, have been combined with the use of population weights.

[2] The wage formulas apply to Jan. 1, 1941. Jan. 15, 1941, is the nearest date for which data on retail prices of individual foods have been computed.

[3] The index now reflects fully the current level of prices for meats as well as the entire price change that occurred since mid-August 1946. Most meat prices in the intervening months were held unchanged from August levels for those cities where an adequate number of quotations was not obtained because of the severe meat shortage. In other cities prices for some meats were compared directly with the nearest preceding months for which a sufficient number of quotations were secured.


RETAIL PRICES OF FOOD TO CITY WORKERS
AVERAGE FOR LARGE CITIES
1935-39=100
INDEX
200
180
160
140
120
100
80
60
1913 1914 1915 1916 1917 1918 1919 1920 1921 1922 1923 1924 1925 1926 1927 1928 1929 1930 1931 1932 1933 1934 1935 1936 1937 1938 1939 1940 1941 1942 1943 1944 1945 1946
UNITED STATES DEPARTMENT OF LABOR
BUREAU OF LABOR STATISTICS

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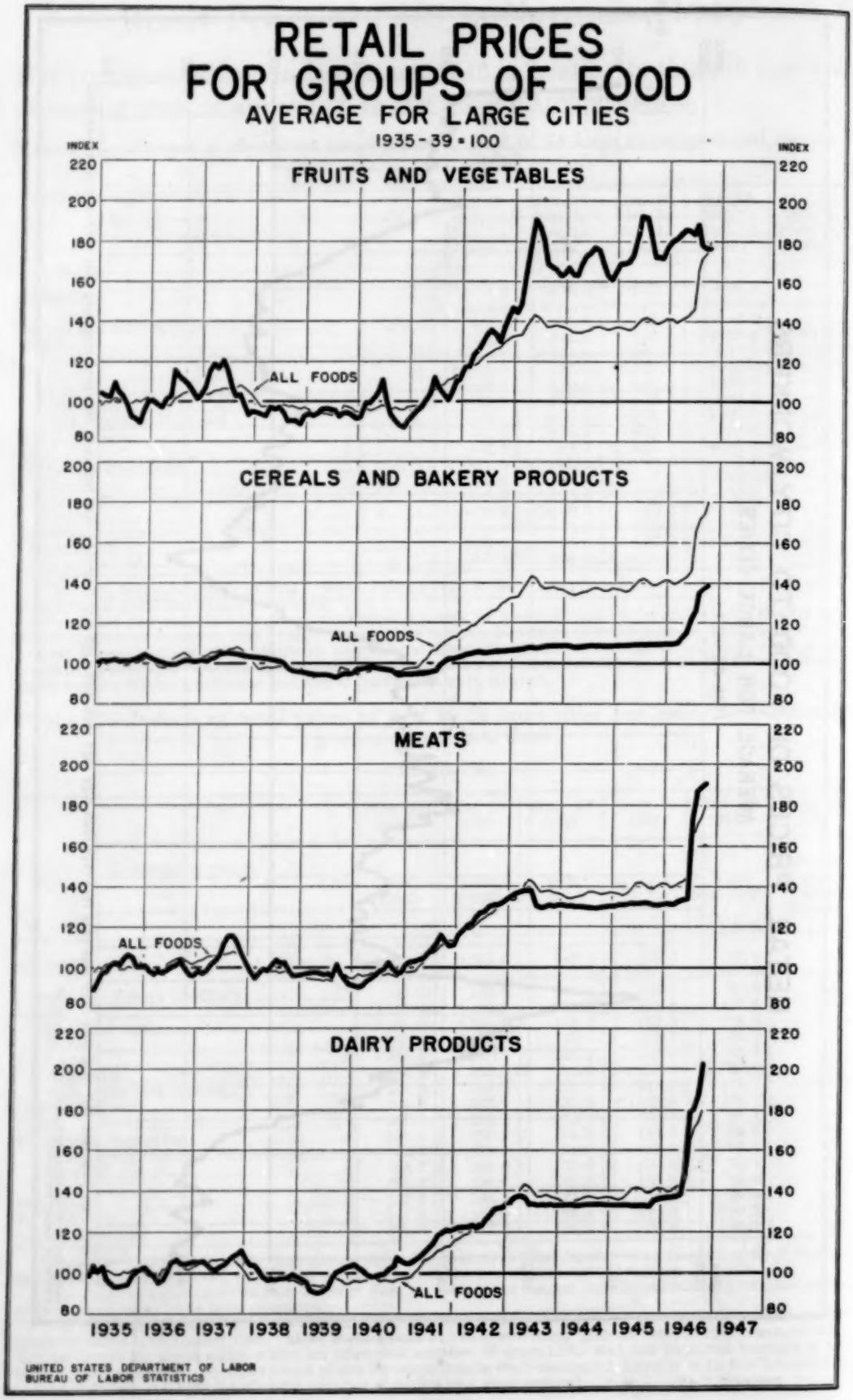
RETAIL PRICES
FOR GROUPS OF FOOD
AVERAGE FOR LARGE CITIES
1935-39 = 100
INDEX
INDEX
FRUITS AND VEGETABLES
ALL FOODS
CEREALS AND BAKERY PRODUCTS
ALL FOODS
MEATS
ALL FOODS
DAIRY PRODUCTS
ALL FOODS
220
200
180
160
140
120
100
80
1935 1936 1937 1938 1939 1940 1941 1942 1943 1944 1945 1946 1947
UNITED STATES DEPARTMENT OF LABOR
BUREAU OF LABOR STATISTICS

TABLE 3.—*Average retail prices of 70 foods in 56 large cities combined, November 1946, compared with earlier months*

Article		Nov. 15 1946	Oct. 15 1946	Nov. 15 1945	Aug. 15 1945	Jan. 15 1941 [1]	Aug. 15 1939
		This month	Last month	Year ago	VJ-day	Wage base date	Month before war in Europe
Cereals and bakery products:							
Cereals:		*Cents*	*Cents*	*Cents*	*Cents*	*Cents*	*Cents*
Flour, wheat	5 pounds	40.7	40.3	32.0	32.2	20.7	17.9
Macaroni	pound	18.7	18.6	15.7	15.8	13.8	14.0
Corn flakes	11 ounces	11.8	11.7	9.2	9.2	9.8	9.7
Corn meal	pound	9.0	8.6	6.5	6.4	4.2	4.0
Rice [2]	do	16.4	14.8	12.9	13.0	7.9	7.5
Rolled oats	do	10.7	10.6	10.4	10.4	7.1	7.1
Bakery products:							
Bread, white	do	11.5	11.6	8.8	8.8	7.8	7.8
Bread, whole-wheat	do	12.4	12.5	9.6	9.7	8.7	8.8
Bread, rye	do	13.2	13.4	9.9	9.9	9.0	9.2
Vanilla cookies	do	37.2	33.7	29.5	28.6	25.1	(4)
Soda crackers	do	24.2	22.2	18.8	18.9	15.0	14.8
Meats:							
Beef:							
Round steak	do	65.6	(3)	40.9	40.9	38.6	36.4
Rib roast	do	55.9	(3)	33.1	33.0	31.5	28.9
Chuck roast	do	47.1	(3)	28.3	28.4	25.2	22.5
Liver	do	53.5	(3)	37.3	36.9	(4)	(4)
Hamburger	do	43.1	(3)	27.4	27.4	(4)	(4)
Veal:							
Cutlets	do	70.3	(3)	44.7	44.4	45.2	42.5
Roast, boned and rolled [2]	do	53.2	(3)	35.3	34.3	(4)	(4)
Pork:							
Chops	do	66.5	(3)	37.2	37.2	29.1	30.9
Bacon, sliced	do	76.1	(3)	41.2	41.2	30.1	30.4
Ham, sliced	do	84.8	(3)	49.6	49.4	45.1	46.4
Ham, whole	do	67.3	(3)	34.9	34.5	26.2	27.4
Salt pork	do	52.8	(3)	22.0	22.0	16.7	15.4
Sausage [2]	do	57.4	(3)	38.8	38.7	(4)	(4)
Lamb:							
Leg	do	62.3	(3)	40.4	40.5	27.8	22.6
Rib chops	do	66.6	(3)	45.9	46.0	35.0	36.7
Poultry: Roasting chickens	do	57.0	68.0	47.0	47.6	31.1	30.9
Fish:							
Fish (fresh, frozen)	do	(5)	(5)	(5)	(5)	(5)	(5)
Salmon, pink	16-ounce can	31.1	24.1	23.0	23.4	15.7	12.8
Salmon, red [2]	do	52.1	43.2	40.4	39.7	26.4	23.1
Dairy products:							
Butter	pound	88.6	96.3	54.4	49.9	38.0	30.7
Cheese	do	69.6	65.3	35.7	35.7	27.0	24.7
Milk, fresh (delivered)	quart	20.0	20.0	15.6	15.6	13.0	12.0
Milk, fresh (store)	do	19.2	19.0	14.5	14.5	11.9	11.0
Milk, evaporated	14½-ounce can	13.9	13.2	10.0	10.1	7.1	6.7
Eggs, fresh	dozen	69.9	74.4	67.9	60.6	34.9	32.0
Fruits and vegetables:							
Fresh fruits:							
Apples	pound	12.0	11.4	14.1	13.1	5.2	4.4
Bananas	do	13.7	11.0	10.5	10.5	6.6	6.1
Oranges	dozen	48.9	57.4	47.0	51.3	27.3	31.5
Grapefruit [2]	each	8.9	10.0	8.5	11.0	(4)	(4)
Fresh vegetables:							
Beans, green	pound	22.7	18.1	20.1	18.7	14.0	7.2
Cabbage	do	5.1	5.1	4.4	6.0	3.4	3.9
Carrots	bunch	9.5	9.5	9.0	9.1	6.0	4.6
Lettuce	head	13.2	11.5	12.3	12.5	8.4	8.4
Onions	pound	4.6	4.7	7.0	7.9	3.6	3.6
Potatoes	15 pounds	60.9	61.0	62.3	73.8	29.2	34.4
Spinach	pound	10.6	10.8	10.2	11.6	7.3	7.8
Sweetpotatoes	do	9.4	9.1	7.7	11.4	5.0	5.5
Canned fruits:							
Peaches	No. 2½ can	31.8	30.8	28.0	27.2	16.5	17.1
Pineapple	do	31.2	28.9	26.5	26.3	20.9	21.0
Grapefruit juice	No. 2 can	14.8	15.2	14.3	14.4	(4)	(4)
Canned vegetables:							
Beans, green	do	15.7	15.0	13.2	13.2	10.0	10.0
Corn	do	17.3	16.2	14.7	14.8	10.7	10.4
Peas	do	15.6	15.2	13.3	13.2	13.2	13.6
Tomatoes	do	20.0	17.6	12.4	12.2	8.4	8.6
Soup, vegetable [2]	11-ounce can	14.1	13.7	13.0	13.2	(4)	(4)
Dried fruits: Prunes	pound	23.8	20.0	17.1	17.4	9.6	8.8
Dried vegetables: Navy beans	do	20.2	14.6	11.4	11.5	6.5	5.8

See footnotes at end of table.

TABLE 3.—*Average retail prices of 70 foods in 56 large cities combined, November 1946, compared with earlier months*—Continued

Article		Nov. 15 1946	Oct. 15 1946	Nov. 15 1945	Aug. 15 1945	Jan. 15 1941	Aug. 15 1939
		This month	Last month	Year ago	VJ-day	Wage base date [1]	Month before war in Europe
Beverages:		*Cents*	*Cents*	*Cents*	*Cents*	*Cents*	*Cents*
Coffee	pound	41.9	41.6	30.7	30.5	20.7	22.3
Tea	¼ pound	24.1	24.3	24.1	24.2	17.6	17.2
Cocoa [2]	½ pound	12.1	10.9	10.3	10.4	9.1	8.6
Fats and oils:							
Lard	pound	52.6	25.8	18.7	18.8	9.3	9.9
Shortening other than lard:							
In cartons	do	41.3	22.3	19.9	20.0	11.3	11.7
In other containers	do	44.9	27.0	24.5	24.5	18.3	20.2
Salad dressing	pint	38.3	30.2	24.7	24.2	20.1	[4]
Oleomargarine	pound	42.5	27.2	24.1	23.9	15.6	16.5
Peanut butter	do	35.2	34.9	29.3	28.6	17.9	17.9
Oil, cooking or salad [2]	pint	46.6	32.1	29.9	30.5	[4]	[4]
Sugar and sweets:							
Sugar	pound	9.1	9.0	6.6	6.7	5.1	5.2
Corn sirup	24 ounces	19.8	19.2	15.7	15.8	13.6	13.7
Molasses [3]	16 fluid ounces	20.8	20.8	20.4	20.4	17.3	17.6

[1] The wage formulas apply to Jan. 1, 1941. Jan. 15, 1941, is the nearest date for which data on retail prices of individual foods have been computed.
[2] Not included in index.
[3] Prices not computed.
[4] Not priced.
[5] Composite price not computed.

TABLE 4.—*Indexes of average retail prices of all foods, by cities,[1] on specified dates*

[1935-39=100]

City	Nov. 15 1946	Oct. 15 1946	Nov. 15 1945	Aug. 15 1945	Jan. 15 1941 [2]	Aug. 15 1939
	This month	Last month	Year ago	VJ-day	Wage base date [2]	Month before war in Europe
United States	187.7	180.0	140.1	140.9	97.8	93.5
Atlanta, Ga	192.0	177.5	141.0	142.1	94.3	92.5
Baltimore, Md	195.1	186.1	147.5	149.1	97.9	94.7
Birmingham, Ala	203.5	183.0	143.8	147.5	96.0	90.7
Boston, Mass	177.8	174.4	133.8	135.7	95.2	93.5
Bridgeport, Conn	179.5	175.9	136.3	137.4	96.5	93.2
Buffalo, N. Y	175.4	168.4	136.7	138.4	100.2	94.5
Butte, Mont	180.8	175.6	137.9	138.7	98.7	94.1
Cedar Rapids, Iowa [3]	192.1	184.8	142.8	145.3	95.9	----
Charleston, S. C	188.2	173.0	138.4	139.7	95.9	95.1
Chicago, Ill	189.4	183.4	137.8	139.2	98.2	92.3
Cincinnati, Ohio	187.0	171.3	137.7	140.0	96.5	90.4
Cleveland, Ohio	193.1	183.1	143.8	145.6	99.2	93.6
Columbus, Ohio	179.4	171.6	133.0	134.0	93.4	88.1
Dallas, Tex	188.7	177.0	137.0	138.9	92.6	91.7
Denver, Colo	192.7	171.4	137.9	139.3	94.8	92.7
Detroit, Mich	181.6	173.9	137.5	138.4	97.0	90.6
Fall River, Mass	182.6	175.6	134.3	134.1	97.5	95.4
Houston, Tex	190.0	174.7	139.5	141.2	102.6	97.8
Indianapolis, Ind	187.3	175.9	136.3	137.7	98.2	90.7
Jackson, Miss. [3]	203.4	195.8	150.1	151.2	105.3	----
Jacksonville, Fla	199.1	182.5	149.5	152.0	98.8	95.8
Kansas City, Mo	178.0	166.6	133.8	135.4	92.4	91.5
Knoxville, Tenn. [3]	226.5	201.5	160.0	160.6	97.1	----
Little Rock, Ark	186.3	172.3	138.8	140.4	95.6	94.0
Los Angeles, Calif	198.1	182.8	149.2	145.9	101.8	94.6

See footnotes at end of table.

TABLE 4.—*Indexes of average retail prices of all foods, by cities,[1] on specified dates*—Continued

City	Nov. 15 1946	Oct. 15 1946	Nov. 15 1945	Aug. 15 1945	Jan. 15 1941[2]	Aug. 15 1939
	This month	Last month	Year ago	VJ-day	Wage base date[2]	Month before war in Europe
Louisville, Ky.	184.9	167.4	134.2	135.0	95.5	92.1
Manchester, N. H.	185.6	176.9	136.1	136.4	96.6	94.9
Memphis, Tenn.	207.3	191.0	148.8	150.9	94.2	89.7
Milwaukee, Wis.	184.1	174.8	137.8	139.4	95.9	91.1
Minneapolis, Minn.	181.7	177.6	133.7	133.2	99.0	95.0
Mobile, Ala.	193.8	182.8	148.4	152.3	97.9	95.5
Newark, N. J.	181.7	179.5	143.6	143.4	98.8	95.6
New Haven, Conn.	179.0	173.9	135.3	137.2	95.7	93.7
New Orleans, La.	207.4	196.0	153.2	156.5	101.9	97.6
New York, N. Y.	188.6	186.7	141.7	141.7	99.5	95.8
Norfolk, Va.	197.0	189.3	144.3	146.1	95.8	93.6
Omaha, Nebr.	184.1	178.2	132.8	131.8	97.9	92.3
Peoria, Ill.	190.3	188.9	145.4	145.9	99.0	93.4
Philadelphia, Pa.	181.6	[4]176.2	137.9	138.9	95.0	93.0
Pittsburgh, Pa.	188.5	179.3	139.7	141.3	98.0	92.5
Portland, Maine.	178.9	173.5	133.9	135.7	95.3	95.9
Portland, Oreg.	194.8	183.7	151.4	150.9	101.7	96.1
Providence, R. I.	186.7	184.1	139.0	141.6	96.3	93.7
Richmond, Va.	188.2	175.9	137.8	138.3	93.7	92.2
Rochester, N. Y.	176.9	172.5	135.1	137.8	99.9	92.3
St. Louis, Mo.	191.8	183.6	141.4	144.0	92.2	93.8
St. Paul, Minn.	180.1	176.2	132.8	132.1	98.6	94.3
Salt Lake City, Utah.	191.9	180.6	145.6	143.9	97.5	94.6
San Francisco, Calif.	205.2	191.4	151.5	147.1	99.6	93.8
Savannah, Ga.	209.4	[4]192.2	155.6	157.5	100.5	96.7
Scranton, Pa.	185.6	182.5	139.5	141.3	97.5	92.1
Seattle, Wash.	194.6	186.1	145.3	145.8	101.0	94.5
Springfield, Ill.	194.9	181.7	145.5	146.1	96.2	94.1
Washington, D. C.	186.8	180.6	140.8	141.7	97.7	94.1
Wichita, Kans.[3]	198.5	189.2	150.6	149.8	97.2	----------
Winston-Salem, N. C.[3]	200.0	184.3	142.1	143.4	93.7	----------

[1] Aggregate costs of 61 foods in each city, weighed to represent total purchases by wage earners and low-salaried workers, have been combined for the United States with the use of population weights.
[2] The wage formulas apply to Jan. 1, 1941. Jan. 15, 1941, is the nearest date for which data on retail prices of individual foods have been computed.
[3] June 1940=100.
[4] Revised.

TABLE 5.—*Indexes of retail food prices in 56 large cities combined, 1913 to November 1946*

[1935-39=100]

Year	All-foods index	Year	All-foods index	Year and month	All-foods index	Year and month	All-foods index
1913	79.9	1930	126.0	*1945*		*1946*	
1914	81.8	1931	103.9				
1915	80.9	1932	86.5	January	137.3	January	141.0
1916	90.8	1933	84.1	February	136.5	February	139.6
1917	116.9	1934	93.7	March	135.9	March	140.1
1918	134.4	1935	100.4	April	136.6	April	141.7
1919	149.8	1936	101.3	May	138.8	May	142.6
1920	168.8	1937	105.3	June	141.1	June	145.6
1921	128.3	1938	97.8				
1922	119.9	1939	95.2	July	141.7	July	165.7
1923	124.0	1940	96.6	August	140.9	August	171.2
1924	122.8	1941	105.5	September	139.4	September	174.1
1925	132.9	1942	123.9	October	139.3	October	180.0
1926	137.4	1943	138.0	November	140.1	November	187.7
1927	132.3	1944	136.1	December	141.4		
1928	130.8	1945	139.1				
1929	132.5						

Wholesale Prices in November 1946

AVERAGE primary market prices [1] rose 4.1 percent during November, reflecting the combined effect of the general decontrol directive on November 9 and the earlier decontrol of most foods. The index of commodity prices reached 139.6 percent of the 1926 average, 30.7 percent higher than in November 1945 and 86.1 percent above August 1939.

Sharpest advances occurred for nonagricultural goods, led by increases for hides and leather products and chemicals and allied products. As a group, prices of all commodities other than farm products and foods rose 4.2 percent, a larger rise than in July 1946 when controls were temporarily suspended. Agricultural commodity prices also advanced.

Farm products advanced 2.7 percent because of higher livestock prices. Quotations for hogs and steers, removed from OPA control in mid-October, rose sharply in late October and remained at the higher level, bringing November average prices 18 to 21 percent above October averages. Prices of cows, calves, and lambs also increased. Live poultry quotations were lower with increased availability of livestock. Average prices of grains and other farm products declined during the month. Corn prices dropped more than 20 percent with heavy supplies of the new crop. The continued boxcar shortage together with decontrol of cereal and bakery products brought higher quotations for other grains. There were sharp price advances for dried beans, clover seed and flaxseed, and citrus fruits. Eggs declined as meat supplies improved. Sharp advances for wool in foreign markets were followed by increases in domestic prices of foreign wools. Prices of domestic wool, which were below world levels, advanced despite large supplies, as the Commodity Credit Corporation raised its selling price to meet parity requirements.

Food prices averaged 4.7 percent higher in November with substantial advances for fruits and vegetables, particularly canned and dried, and smaller increases for meats, cereal products, and other foods. Sharpest increases among meats occurred for cured pork products which were still scarce. Beef and veal prices also were higher but prices of lamb and mutton declined from the high levels immediately following decontrol. Prices of flour and bakery products were higher, reflecting removal of OPA control in late October. There also were

[1] The Bureau of Labor Statistics wholesale price data, for the most part, represent prices in primary markets. In general, the prices are those charged by manufacturers or producers or are those prevailing on commodity exchanges. The monthly index is calculated from a monthly average of 1-day-a-week prices. It should not be compared directly with the weekly wholesale prices index, which is designed as an indicator of week-to-week changes. Indexes for the last 2 months are preliminary.

sharp increases for a number of other foods, including several fats and oils in short supply, coffee and cocoa, and canned fish. Dairy products declined with lower butter and cheese quotations, but prices of fluid milk were higher in Chicago and New York in accordance with milk marketing agreements. Prices for condensed and evaporated milk also increased.

Hides and leather products increased 21.1 percent as a group. Domestic hide quotations, which had been below world prices, jumped sharply immediately following their removal from control; some grades doubled in price, but declined from these levels late in the month. These raw material cost increases were reflected in substantially higher prices for leather (up 29 percent) and in a general advance for shoes (up about 12 percent).

Textile products rose 2.1 percent during the month, generally because of higher raw material costs, which resulted in OPA ceiling adjustments for cotton goods and clothing late in October. Higher prices in foreign markets were reflected in substantial increases for burlap, raw jute, and Mexican sisal. Raw silk prices were lower in the latest Government auction and only about a fourth of the amount offered was sold because of a continuing lack of interest in high priced silk products.

In contrast to other groups, fuel and lighting materials were comparatively stable. The fractional increase was due to higher prices for a few petroleum products and higher sales realizations for gas and electricity.

First effects of removal of OPA controls in the metals and metal products group, which averaged 3.2 percent higher during the month, were evident in nonferrous metals, which were especially scarce. Antimony prices rose nearly 50 percent; copper, lead, tin, babbitt metal, 20 percent or more; and zinc, 14 percent. Metal increases also caused substantial price advances for a number of manufactured products, such as lead pipe, brass mill products, and copper wire. There were general advances in prices of motor vehicles, agricultural implements, and farm machinery to meet higher costs, and some advances for small hand tools.

Higher prices for paint and most paint materials and for southern pine and Douglas fir lumber were chiefly responsible for the 7.9-percent advance in building materials prices between October and November. Increases for paint including lead pigments and prepared paints were due in the main to higher raw material costs, or short supplies. The increase for prepared paint was allowed by OPA in late October. Lumber mills began a general upward realignment of prices in an unsettled market, after decontrol, as prices varied widely between sellers. Increases for southern pine ranged from about 15 to 23

percent, with the largest increases in the higher grades. There also were increases for a number of other building materials, including plate glass, roofing, wallboard, brick and tile, and cement.

Sharp price advances for scarce chemicals, including fats and oils, fatty acids and glycerin, and coal tar products, raised average prices of chemicals and allied products 19.0 percent in November. Seasonal discontinuance of trade discounts for potash resulted in an increase of 4.8 percent for fertilizer materials.

Housefurnishings as a group were 2.5 percent higher in November. Rug manufacturers generally announced higher prices following decontrol. Higher raw material costs brought advances for cotton blankets, linoleum, and oilcloth. Furniture prices also increased as a result of higher production costs.

Miscellaneous commodities rose 2.4 percent in November largely owing to the sharp increases in prices of soap immediately after removal from price control. A number of soap products were more than 50 percent higher in price, and were in very short supply. Short supplies resulted in higher prices for paper and wood pulp. Cattle feed quotations declined steadily from the high levels immediately following decontrol, because of decreased demand and increased availability of corn.

TABLE 1.—*Indexes of wholesale prices by groups and subgroups of commodities, November 1946, compared with previous months*

Groups and subgroups	Indexes (1926=100)				Percent changes to November 1946 from—		
	Nov. 1946	Oct. 1946	Nov. 1945	Aug. 1939	Oct. 1946	Nov. 1945	Aug. 1939
All commodities	[1] 139.6	[1] 134.1	106.8	75.0	+4.1	+30.7	+86.1
Farm products	169.8	165.3	131.1	61.0	+2.7	+29.5	+178.4
Grains	165.4	174.2	132.9	51.5	−5.1	+24.5	+221.2
Livestock and poultry	197.4	174.6	131.8	66.0	+13.1	+49.8	+199.1
Other farm products	153.3	156.1	129.3	60.1	−1.8	+18.6	+155.1
Foods	165.4	157.9	107.9	67.2	+4.7	+53.3	+146.1
Dairy products	182.9	185.5	113.2	67.9	−1.4	+61.6	+169.4
Cereal products	136.1	128.5	95.5	71.9	+5.9	+42.5	+89.3
Fruits and vegetables	139.5	122.5	123.8	58.5	+13.9	+12.7	+138.5
Meats	202.8	191.4	107.9	73.7	+6.0	+88.0	+175.2
Other foods	141.4	136.2	100.7	60.3	+3.8	+40.4	+134.5
Hides and leather products	172.5	142.4	118.8	92.7	+21.1	+45.2	+86.1
Shoes	162.9	145.2	126.7	100.8	+12.2	+28.6	+61.6
Hides and skins	221.0	153.0	117.6	77.2	+44.4	+87.9	+186.3
Leather	178.1	138.5	103.8	84.0	+28.6	+71.6	+112.0
Other leather products	123.5	118.6	115.2	97.1	+4.1	+7.2	+27.2
Textile products	131.3	128.6	101.1	67.8	+2.1	+29.9	+93.7
Clothing	127.9	125.5	107.4	81.5	+1.9	+19.1	+56.9
Cotton goods	174.7	172.9	125.1	65.5	+1.0	+39.6	+166.7
Hosiery and underwear	89.3	88.8	71.5	61.5	+.6	+24.9	+45.2
Rayon	30.2	30.2	30.2	28.5	0	0	+6.0
Silk	115.0	125.7	------	44.3	+8.5	------	+159.6
Woolen and worsted goods	117.7	116.6	112.7	75.5	+.9	+4.4	+55.9
Other textile products	161.3	130.6	101.9	63.7	−23.5	+58.3	+153.2

See footnotes at end of table.

TABLE 1.—*Indexes of wholesale prices by groups and subgroups of commodities, November 1946, compared with previous months*—Continued

Groups and subgroups	Indexes (1926=100)				Percent changes to November 1946 from—		
	Nov. 1946	Oct. 1946	Nov. 1945	Aug. 1939	Oct. 1946	Nov. 1945	Aug. 1939
Fuel and lighting materials	94.5	94.2	84.6	72.6	+0.3	+11.7	+30.2
Anthracite	113.5	113.5	102.2	72.1	0	+11.1	+57.4
Bituminous coal	137.4	137.2	124.8	96.0	+.1	+10.1	+43.1
Coke	147.5	147.5	134.9	104.2	0	+9.3	+41.6
Electricity	(2)	(2)	68.0	75.8			
Gas	(2)	80.8	79.1	86.7			
Petroleum and products	73.4	73.1	61.7	51.7	+.4	+19.0	+42.0
Metals and metal products	[1] 129.7	[1] 125.7	105.2	93.2	+3.2	+23.3	+39.2
Agricultural implements	112.5	108.7	98.1	93.5	+3.5	+14.7	+20.3
Farm machinery	113.8	109.9	99.1	94.7	+3.5	+14.8	+20.2
Iron and steel	114.0	113.7	100.2	95.1	+.3	+13.8	+19.9
Motor vehicles	[1] 147.0	[1] 143.3	112.8	92.5	+2.6	+30.3	+58.9
Nonferrous metals	118.4	101.8	85.8	74.6	+16.3	+38.0	+58.7
Plumbing and heating	107.2	107.2	95.0	79.3	0	+12.8	+35.2
Building materials	145.5	134.8	118.7	89.6	+7.9	+22.6	+62.4
Brick and tile	129.1	127.8	116.7	90.5	+1.0	+10.6	+42.7
Cement	107.0	106.5	100.1	91.3	+.5	+6.9	+17.2
Lumber	192.1	178.9	155.5	90.1	+7.4	+23.5	+113.2
Paint and paint materials	151.3	119.2	107.7	82.1	+26.9	+40.5	+84.3
Plumbing and heating	107.2	107.2	95.0	79.3	0	+12.8	+35.2
Structural steel	120.1	120.1	107.3	107.3	0	+11.9	+11.9
Other building materials	125.3	122.5	105.4	89.5	+2.3	+18.9	+40.0
Chemicals and allied products	118.9	99.9	95.7	74.2	+19.0	+24.2	+60.2
Chemicals	106.9	98.8	96.7	83.8	+8.2	+10.5	+27.6
Drugs and pharmaceuticals	152.8	111.5	110.7	77.1	+37.0	+38.0	+98.2
Fertilizer materials	96.3	91.9	81.9	65.5	+4.8	+17.6	+47.0
Mixed fertilizer	91.1	90.5	86.6	73.1	+.7	+5.2	+24.6
Oils and fats	191.0	111.1	102.0	40.6	+71.9	+87.3	+470.4
Housefurnishing goods	118.2	115.3	104.7	85.6	+2.5	+12.9	+38.1
Furnishings	124.4	121.3	107.9	90.0	+2.6	+15.3	+38.2
Furniture	111.8	109.2	101.6	81.1	+2.4	+10.0	+37.9
Miscellaneous	106.5	104.0	94.8	73.3	+2.4	+12.3	+45.3
Automobile tires and tubes	73.0	73.0	73.0	60.5	0	0	+20.7
Cattle feed	210.8	217.2	159.6	68.4	−2.9	+32.1	+208.2
Paper and pulp	127.7	124.6	109.3	80.0	+2.5	+16.8	+59.6
Rubber, crude	46.2	46.2	46.2	34.9	0	0	+32.4
Other miscellaneous	113.3	108.2	98.9	81.3	+4.7	+14.6	+39.4
Raw materials	153.4	148.7	118.9	66.5	+3.2	+29.0	+130.7
Semimanufactured articles	129.1	118.2	96.9	74.5	+9.2	+33.2	+73.3
Manufactured products	[1] 134.6	[1] 129.6	102.2	79.1	+3.9	+31.7	+70.2
All commodities other than farm products	[1] 132.8	[1] 127.1	101.3	77.9	+4.5	+31.1	+70.5
All commodities other than farm products and foods	[1] 120.6	[1] 115.7	100.2	80.1	+4.2	+20.4	+50.6

[1] Includes current motor vehicle prices.

Motor vehicles.—The rate of production of motor vehicles in October 1946 exceeded the monthly average rate of civilian production in 1941, and in accordance with the announcement made in the September release the Bureau introduced current prices for motor vehicles in the October calculations. During the war, motor vehicles were not produced for general civilian sale and the Bureau carried April 1942 prices forward in each computation through September 1946.

If April 1942 prices of motor vehicles had been used after September 1946, the indexes for the groups of which motor vehicles is a component would have been:

	Indexes (1926=100)	
	November	*October*
All commodities	137.9	132.5
Metals and metal products	117.0	114.3
Manufactured products	131.7	127.0
All commodities other than farm products	130.7	125.1
All commodities other than farm products and foods	117.8	113.2

These special indexes will be published as long as the need for them continues.

[2] Not available.

Index Numbers by Commodity Groups, 1926 to November 1946

Index numbers of wholesale prices by commodity groups for selected years from 1926 to 1945, and by months from November 1945 to November 1946, are shown in table 2.

TABLE 2.—*Index numbers of wholesale prices by groups of commodities*

[1926=100]

Year and month	Farm products	Foods	Hides and leather products	Textile products	Fuel and lighting materials	Metals and metal products	Building materials	Chemicals and allied products	House-furnishing goods	Miscellaneous	All commodities
1926	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1929	104.9	99.9	109.1	90.4	83.0	100.5	95.4	94.0	94.3	82.6	95.3
1932	48.2	61.0	72.9	54.9	70.3	80.2	71.4	73.9	75.1	64.4	64.8
1933	51.4	60.5	80.9	64.8	66.3	79.8	77.0	72.1	75.8	62.5	65.9
1936	80.9	82.1	95.4	71.5	76.2	87.0	86.7	78.7	81.7	70.5	80.8
1937	86.4	85.5	104.6	76.3	77.6	95.7	95.2	82.6	89.7	77.8	86.3
1938	68.5	73.6	92.8	66.7	76.5	95.7	90.3	77.0	86.8	73.3	78.6
1939	65.3	70.4	95.6	69.7	73.1	94.4	90.5	76.0	86.3	74.8	77.1
1940	67.7	71.3	100.8	73.8	71.7	95.8	94.8	77.0	88.5	77.3	78.6
1941	82.4	82.7	108.3	84.8	76.2	99.4	103.2	84.4	94.3	82.0	87.3
1942	105.9	99.6	117.7	96.9	78.5	103.8	110.2	95.5	102.4	89.7	98.8
1943	122.6	106.6	117.5	97.4	80.8	103.8	111.4	94.9	102.7	92.2	103.1
1944	123.3	104.9	116.7	98.4	83.0	103.8	115.5	95.2	104.3	93.6	104.0
1945	128.2	106.2	118.1	100.1	84.0	104.7	117.8	95.2	104.5	94.7	105.8
1945											
November	131.1	107.9	118.8	101.1	84.6	105.2	118.7	95.7	104.7	94.8	106.8
December	131.5	108.6	118.9	101.4	84.8	105.6	119.5	96.1	104.7	94.8	107.1
1946											
January	129.9	107.3	119.4	101.6	84.9	105.7	120.0	96.0	106.2	95.3	107.1
February	130.8	107.8	119.6	102.2	85.1	106.6	120.9	95.9	106.5	95.6	107.7
March	133.4	109.4	119.8	104.7	85.0	108.4	124.9	96.0	106.9	95.6	108.9
April	135.4	110.8	119.8	107.9	86.1	108.8	126.5	96.1	107.5	95.7	110.2
May	137.5	111.5	120.4	108.8	86.1	109.4	127.8	96.5	108.3	97.0	111.0
June	140.1	112.9	122.4	109.2	87.8	112.2	129.9	96.4	110.4	98.5	112.9
July	157.0	140.2	141.2	118.1	90.3	113.3	132.1	99.3	111.9	101.3	124.7
August	161.0	149.0	138.9	124.0	94.4	114.0	132.7	98.4	112.6	102.0	129.1
September	154.3	131.9	141.6	125.7	94.3	114.2	133.8	98.4	113.6	102.1	124.0
October	165.3	157.9	142.4	128.6	94.2	125.7	134.8	99.9	115.3	104.0	134.1
November	169.8	165.4	172.5	131.3	94.5	129.7	145.5	118,9	118.2	106.5	139.6

The price trend for specified years and months since 1926 is shown in table 3 for the following groups of commodities: Raw materials, semimanufactured articles, manufactured products, commodities other than farm products and commodities other than farm products and foods. The list of commodities included under the classifications "Raw materials," "Semimanufactured articles," and "Manufactured products" was shown on pages 10 and 11 of Wholesale Prices, July–December and Year 1943 (Bulletin No. 785).

TABLE 3.—*Index numbers of wholesale prices by special groups of commodities*

[1926=100]

Year and month	Raw materials	Semimanufactured articles	Manufactured products	All commodities other than farm products	All commodities other than farm products and foods	Year and month	Raw materials	Semimanufactured articles	Manufactured products	All commodities other than farm products	All commodities other than farm products and foods
1926	100.0	100.0	100.0	100.0	100.0	*1945*					
1929	97.5	93.9	94.5	93.3	91.6	November	118.9	96.9	102.2	101.3	100.2
1932	55.1	59.3	70.3	68.3	70.2	December	119.2	97.6	102.5	101.6	100.5
1933	56.5	65.4	70.5	69.0	71.2	*1946*					
1936	79.9	75.9	82.0	80.7	79.6	January	118.3	97.6	102.9	101.9	100.8
1937	84.8	85.3	87.2	86.2	85.3	February	118.9	98.8	103.4	102.5	101.3
1938	72.0	75.4	82.2	80.6	81.7	March	120.5	100.4	104.5	103.4	102.2
1939	70.2	77.0	80.4	79.5	81.3	April	122.2	101.1	105.5	104.5	103.3
1940	71.9	79.1	81.6	80.8	83.0	May	123.6	101.9	106.1	105.1	103.9
1941	83.5	86.9	89.1	88.3	89.0	June	126.3	105.7	107.3	106.7	105.6
1942	100.6	92.6	98.6	97.0	95.5	July	141.7	110.2	118.9	117.5	109.5
1943	112.1	92.9	100.1	98.7	96.9	August	145.7	111.9	123.9	121.9	111.6
1944	113.2	94.1	100.8	99.6	98.5	September	141.4	115.0	117.2	117.2	112.2
1945	116.8	95.9	101.8	100.8	99.7	October	148.7	118.2	129.6	127.1	115.7
						November	153.4	129.1	134.6	132.8	120.6

Weekly Fluctuations

Weekly changes in wholesale prices by groups of commodities during October and November 1946 are shown by the index numbers in table 4. These indexes are not averaged to obtain an index for the month but are computed only to indicate the fluctuations from week to week.

TABLE 4.—*Weekly index numbers of wholesale prices by commodity groups, October and November 1946*

[1926=100]

Commodity group	Nov. 30	Nov. 23	Nov. 16	Nov. 9	Nov. 2	Oct. 26	Oct. 19	Oct. 12	Oct. 5
All commodities	139.1	137.3	135.8	134.8	134.8	135.9	135.1	126.0	125.1
Farm products	170.3	172.1	167.3	166.0	166.5	170.1	160.1	160.2	158.0
Foods	163.6	165.0	164.1	162.5	165.9	169.9	175.6	137.7	135.5
Hides and leather products	165.0	158.6	159.2	158.7	143.3	143.3	141.5	141.3	141.1
Textile products	130.7	129.6	129.5	130.2	127.3	126.5	126.3	126.1	125.9
Fuel and lighting materials	95.8	94.9	94.8	94.7	94.8	95.0	95.0	95.0	95.0
Metals and metal products	131.8	117.2	116.3	114.4	114.4	114.4	114.4	114.2	114.2
Building materials	144.3	142.0	140.4	140.0	137.4	134.2	134.2	134.1	134.1
Chemicals and allied products	123.7	123.1	122.3	110.2	103.5	99.5	98.8	98.8	98.6
Housefurnishing goods	118.3	118.0	117.6	117.5	117.3	115.9	115.7	115.3	115.1
Miscellaneous	106.7	106.1	104.6	104.9	105.4	103.7	102.5	102.2	102.2
Raw materials	154.8	155.3	152.6	152.2	150.9	153.0	146.3	146.3	144.5
Semimanufactured articles	130.2	128.2	125.9	122.4	120.6	117.7	117.5	117.1	116.9
Manufactured products	134.1	131.1	130.4	129.5	130.4	131.7	133.7	118.6	118.1
All commodities other than farm products	132.3	129.7	129.0	128.0	127.9	128.5	129.7	118.4	117.8
All commodities other than farm products and foods	121.1	116.9	116.2	115.5	114.0	113.1	112.8	112.6	112.6

Construction

Construction Activity, October-December 1946

The Housing Program

Progress in home building.—Completion of over 55,000 new permanent nonfarm homes in November set a new high for 1946 in the number of dwellings made ready for occupancy in any one month. It was the first month in 1946 that completions exceeded new units started. The upward trend in completions, together with a drop in starts, resulted in the first monthly decrease since the beginning of the veterans' housing program in the number of homes under construction. By the end of November 361,000 new permanent homes were being built, compared with 366,400 by October's end. There probably will be further reductions during the next few months in the backlog of units under construction, since a better flow of materials to the job site is expected, and it may be possible, therefore, to rush to completion the great volume of dwellings now in the final building stages.

New permanent dwellings started during the month, according to a revised estimate, totaled 49,700, all of which were privately financed. While this was about 8,000 below the number started in October, it was still the highest November figure reported in the past 18 years. More permanent homes were begun with private funds in the first 11 months of 1946 (622,300) than in any entire year since the building boom of the twenties.

Two out of every three family dwelling units (or equivalents) begun and completed during the veterans' emergency housing program are of the permanent type. Other types of housing covered by the program are units created through conversion of existing structures, trailers, dormitories, and temporary re-use accommodations. During October, however, when the temporary re-use program had almost come to a close, permanent housing accounted for seven-tenths of all housing accommodations started, and by November the proportion had increased to eight-tenths.

Among the 10 cities which led in the number of new permanent family dwellings begun or scheduled to begin in November were San Mateo, a suburb of San Francisco (283 units), and Pomona, a suburb of Los Angeles (418 units). Los Angeles itself and New York were the two leading cities, with over a thousand units each.

Employment on the site of new residential construction dropped by 40,000 workers during November to a total of 581,000. There was a slight decline also in expenditures for new home construction, from 393 million dollars to 383 million dollars. The entire 10-million-dollar decrease was in privately financed building. Preliminary estimates indicate that more dollars (3¼ billion) were spent for building new houses during the first 11 months of 1946 than in the comparable period of any year since 1928.

TABLE 1.—*Estimated number of family-dwelling units or equivalent living accommodations started and completed in nonfarm areas, January–November 1946* [1]

Month	Number of units					
	Started			Completed		
	Total	New permanent family dwellings [2]	Other [3]	Total	New permanent family dwellings [4]	Other [5]
First 11 months of 1946	946,900	630,300	316,600	584,300	395,800	188,500
January	49,400	36,100	13,300	25,900	18,700	7,200
February	56,700	43,100	13,600	29,200	20,300	8,900
March	86,100	60,400	25,700	32,400	22,600	9,800
April	97,100	66,100	31,000	37,300	26,400	10,900
May	106,000	67,500	38,500	41,900	30,300	11,600
June	94,400	63,600	30,800	48,700	34,900	13,800
July	105,800	64,300	41,500	57,700	41,000	16,700
August	106,000	64,400	41,600	62,200	42,200	20,000
September	104,400	57,100	47,300	81,700	49,800	31,900
October	79,000	58,000	21,000	85,500	54,500	31,000
November	62,000	49,700	12,300	81,800	55,100	26,700

[1] Excludes military barracks.
[2] Includes 8,027 permanent units started by New York City Housing Authority, and 34,500 prefabricated units (National Housing Agency estimate).
[3] Covers 55,200 privately financed converted units; 193,500 Federal (Mead-Lanham temporary housing program) units (151,300 family dwellings and 42,200 dormitory equivalents—Federal Public Housing estimates); 41,900 trailers (Bureau of the Census); and 26,000 family and dormitory equivalent units financed by various State and local public bodies and educational institutions. These units are not included under the Federal Mead-Lanham temporary housing program. A small proportion of new permanent units provided in the local emergency program, now included under "Other," will be shown for all months in the column for new permanent housing in future publications of this table.
[4] Break-down not available for conventional and prefabricated units.
[5] Covers 54,700 conversion units, 83,300 re-use units, 41,900 trailers, and 8,600 local emergency units. A small proportion of new permanent units provided in the local emergency program, now included under "Other," will be shown in the column for new permanent housing in future publications of this table.

Recent developments.—On December 14, 1946, the President announced drastic reduction in the remaining restrictions on home building. As a result of a conference with his new economic and housing advisers,[1] it was decided (1) to open new home building to anyone,

[1] After resignation of Wilson Wyatt December 5, 1946, Frank R. Creedon, formerly CPA Deputy Administrator, was appointed Housing Expediter, and Raymond M. Foley, Federal Housing Administrator, was appointed Administrator of the National Housing Agency. Wilson Wyatt had held both of these posts. In addition, on December 12, Mr. Truman abolished the Office of War Mobilization and Reconversion, the Office of Price Administration, the Civilian Production Administration, the Wage Stabilization Board, and the Economic Stabilization Board, and assigned most remaining functions, including rent control and building regulations, to a new Office of Temporary Controls. General Philip B. Fleming was named head of the new office, retaining his position also as Federal Works Administrator.

veteran or nonveteran, who wished to build a year-round house of certain restricted floor area for his own occupancy, (2) to discard the $10,000 ceiling on the sales price of new houses, (3) to discontinue priorities for obtaining scarce materials, (4) to permit builders to construct rental units to *average* $80 per month rental per project, as compared with the maximum limit of $80 stipulated under former regulations, (5) to increase the $35,000,000 weekly limit on nonresidential building, and (6) to emphasize provision of rental housing in 1947.

Building priorities were formally discontinued on December 24, and a building permit system was established instead. The permit system provides that builders secure permission from the National Housing Agency for new residential building which meets announced requirements of year-round occupancy, and stipulated maximum floor area and rental price. Limitation of nonresidential building is continued under the Office of Temporary Controls,[2] and permission to undertake such work, unless specifically exempted, must be secured from that office.

Total Construction Activity

Construction expenditures declined in December 1946 for the third successive month, but were still over a billion dollars, according to preliminary estimates. December expenditures of $1,065,000,000 were 86 million dollars below the November figure but almost twice the amount spent in the same month a year ago. Privately financed public utilities projects, which reached 82 million dollars, mostly because of expanded building programs of telephone and telegraph companies, were the only type of construction which did not decrease in dollar volume during the month. On the other hand, private new residential building in nonfarm areas and public highway construction accounted for almost half the over-all drop, each having declined 20 million dollars, to 300 million and 75 million dollars, respectively. Private expenditures for new industrial buildings, which had been rising continuously since the second quarter of 1944, dipped slightly in December to 169 million dollars; commercial building fell from 87 million to 79 million dollars.

The dollar volume of construction put in place during the entire year of 1946 totaled almost 12 billion dollars—the most spent in any year since 1942. In addition, 1946 brought the greatest annual expenditure in the country's history of private dollars (3.4 billion) for new nonresidential building. Approximately the same amount was spent for private new home construction, which was exceeded only in the years 1923–28.

[2] See footnote 1 on preceding page.

Employment on construction followed the same general down trend in December, dropping by 150,000 workers to 1,915,000. Peak employment for the year 1946 (2,308,000) was reached in August, and was greater than in any month since the height of the war construction program in the summer of 1942.

TABLE 2.—*Estimated construction employment [1] in the United States, selected months of 1945 and 1946*

Type of project	Employment (in thousands)			
	1946			December 1945
	December [2]	November [3]	October [3]	
All types	1,915	2,065	2,250	1,215
New construction	1,662	1,791	1,952	990
Private construction	1,259	1,336	1,452	796
Residential (nonfarm) building	510	550	595	275
Nonresidential building	552	577	607	367
Farm construction	21	42	85	12
Public utilities	176	167	165	142
Public construction	403	455	500	194
Federal [4]	254	275	286	109
Residential building	121	128	128	4
Nonresidential building	24	26	31	55
Reclamation	10	10	10	7
River, harbor, and flood control	33	33	33	20
Streets and highways	46	57	63	9
All other	20	21	21	14
Non-Federal [5]	149	180	214	85
Streets and highways	73	94	106	28
All other [6]	76	86	108	57
Minor building repairs	253	274	298	225
Residential	70	75	82	70
Nonresidential	105	110	125	115
Farm construction	78	89	91	40

[1] Estimates include wage earners, salaried employees, and special trades contractors actively engaged on new construction, additions and alterations, and on repair work of the type usually covered by building permits, whether performed under contract or by force-account. (Force-account employees are workers hired directly by the owner and utilized as a separate work force to perform construction work of the type usually chargeable to capital account.) These figures should not be confused with those included in the Bureau's nonagricultural employment series, which covers only employees of construction contractors and Federal force-account workers, and excludes force-account workers of State and local governments, public utilities, and private firms.

[2] Preliminary.

[3] Revised.

[4] Includes the following force-account employees hired directly by the Federal Government: December 1945, 18,200; October 1946, 21,100; November 1946, 20,000; December 1946, 19,000.

[5] Mainly airports, water and sewer systems, and electrification projects.

[6] Includes community buildings, water supply and sewage disposal projects, and miscellaneous public service enterprises.

TABLE 3.—*Estimated construction expenditures [1] in the United States, selected months of 1945 and 1946*

Type of construction	Expenditures (in millions)					
	1946			December 1945 [3]	1946 [2]	1945 [3]
	December [2]	November [3]	October [3]			
Total construction	$1,065	$1,151	$1,235	$552	$11,944	$5,643
New construction [4]	909	985	1,062	442	10,131	4,555
Private construction	691	730	768	348	7,868	2,547
Residential (nonfarm) building	300	320	330	116	3,303	670
Nonresidential building	299	311	320	162	3,364	1,014
Industrial	169	172	172	91	1,699	642
Commercial	79	87	93	46	72	199
All other	51	52	55	25	1,593	173
Farm construction	10	20	40	5	350	191
Public utilities	82	79	78	65	851	672
Public construction	218	255	294	94	2,263	2,008
Residential building	57	63	63	2	379	71
Nonresidential (except military and naval facilities)	23	26	31	25	317	780
Industrial facilities [5]	5	6	8	9	82	598
All other	18	20	23	16	235	182
Military and naval facilities	14	16	20	18	185	562
Highway	75	95	115	21	829	302
Other public	49	55	65	28	553	293
Federal [6]	25	28	32	14	281	141
State and local [7]	24	27	33	14	272	152
Minor building repairs [8]	156	166	173	110	1,813	1,088
Residential (nonfarm)	42	45	47	33	530	310
Nonresidential building	60	63	66	52	753	461
Farm construction	54	58	60	25	530	317

[1] Estimated construction expenditures represent the monetary value of work put in place in continental United States during the period indicated. These figures should not be confused with the data on value of construction reported in the table on urban building construction (table 4).
[2] Preliminary.
[3] Revised.
[4] Estimates of new construction were prepared jointly by the Bureau of Labor Statistics and the Office of Domestic Commerce (a successor to the Bureau of Foreign and Domestic Commerce) and include expenditures for new construction, major additions, and alterations.
[5] Expenditures for floating drydocks and facilities for the production of atomic bombs are excluded.
[6] Mainly river, harbor, flood control, reclamation, and power projects.
[7] Includes water supply, sewage disposal, and miscellaneous public-service enterprises.
[8] Covers privately financed structural repairs of the type for which building permits are generally required.

Over a third of a million more workers were employed on nonfarm residential building and repair in December 1946 than in January—more than half the total employment gain on construction over the year. Almost every category of construction activity shared with home building in the employment rise during the year, nonresidential building and repair adding 109,000 workers, highway work 89,000, and public utilities 55,000.

Urban Building

Continuing the down trend which started in September, permit valuations of urban building (including the value of Federal construction contracts awarded) dropped 67 million dollars in November to a total of 268 million dollars. Almost two-thirds of the decrease during the month was accounted for by the 22-percent decline in new resi-

dential building valuations, which fell from 193 million to 150 million dollars. New nonresidential building, however, decreased only 7 million dollars (9 percent) to 77 million dollars, and additions, alterations, and repairs at 41 million dollars were down 17 million dollars (29 percent) from the preceding month.

Ordinarily a decrease in building activity is to be expected in November, since by that time winter weather has already set in in many parts of the country. November 1946, however, brought other uncertainties for the construction industry in addition to seasonal disturbances. On November 9, wage controls and practically all price controls were removed, including those affecting construction workers and building materials. Other controls introduced during the Veterans' Emergency Housing Program, including regulations affecting priorities and producers' subsidies, remained in effect. It is quite likely that many builders held back plans for new projects, on the one hand, because of uncertainties regarding future building costs, and, on the other hand, in anticipation of additional decontrol orders.

Among the outstanding privately financed individual undertakings for which building permits were issued in urban areas in November are 3 multiple dwelling projects, each valued at over a million dollars. Two of them are insurance company investment projects—one of 364 units to be constructed in the Manhattan Borough of New York City and another of 258 units to be built in Boston. The third is a 142-unit project, financed by a trust company, to house UNO personnel in Queens Borough, New York City.

In addition, there were 3 nonresidential building projects scheduled to be started during the month for each of which the permit valuation was in excess of a million dollars: (1) an 8-million-dollar telephone company building in Boston, (2) a factory building (2 million dollars) for a brewing company in Milwaukee, and (3) a 1-million-dollar building for a hot metal converting and mixing company in Lorain, Ohio.

The one outstanding federally financed undertaking for which contracts were awarded in urban areas in November is a 300-bed Veterans Administration hospital in Sioux Falls, S. Dak., valued at 3¾ million dollars.

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TABLE 4.—*Permit valuation [1] of urban building construction,[2] by class of construction and by source of funds, selected months of 1945 and 1946*

Class of construction	Valuation (in millions)				
	1946		November 1945 [4]	First 11 months of—	
	November [3]	October [4]		1946 [3]	1945 [4]
	Total				
All building construction	$268	$335	$262	$4,338	$1,728
New residential [5]	150	193	97	2,257	571
New nonresidential	77	84	110	1,370	696
Additions, alterations, and repairs	41	58	55	711	461
	Non-Federal				
All building construction	263	324	256	4,053	1,480
New residential [5]	150	184	97	2,023	540
New nonresidential	73	84	106	1,345	508
Additions, alterations, and repairs	40	56	53	685	432
	Federal				
All building construction	5	[6] 11	6	[7] 285	248
New residential [5]	(8)	[6] 9	(8)	[7] 234	31
New nonresidential	4	(8)	4	25	188
Additions, alterations, and repairs	1	2	2	26	29

[1] Includes value of Federal construction contracts awarded.
[2] Estimates of non-Federal (private, and State and local government) urban building construction are based upon building-permit reports received from places containing about 85 percent of the urban population of the country; estimates of federally financed projects are compiled from notifications of construction contracts awarded, which are obtained from other Federal agencies.
[3] Preliminary.
[4] Revised.
[5] Includes value of dormitories and other nonhousekeeping residential buildings in addition to housekeeping units shown in table 5.
[6] Includes $8,440,000, the estimated cost of 1,286 dwelling units in New York City Housing Authority projects. These projects, although financed solely with city funds, are included with Federal projects in order to segregate public from private housing. All other types of building construction financed with State or local government funds are included under "non-Federal."
[7] Includes $45,188,850, the estimated cost of 8,027 dwelling units contained in New York City Housing Authority projects.
[8] Value less than $500,000.

TABLE 5.—*Estimated number and permit valuation [1] of new dwelling units scheduled to be started in all areas,[2] selected months of 1945 and 1946*

Source of funds and type of dwelling	1946		November 1945	First 11 months of—	
	November [3]	October [4]		1946 [3]	1945 [4]
	Number of dwelling units				
All dwellings	28,601	37,401	20,867	479,185	142,364
Privately financed	28,479	36,067	20,417	404,538	131,456
1-family	23,731	29,576	17,421	340,388	110,001
2-family [5]	1,554	1,899	1,069	23,054	8,007
Multifamily [6]	3,194	4,592	1,927	41,096	13,448
Federally financed [7]	122	1,334	450	74,647	10,908
	Valuation (in thousands)				
All dwellings	$149,329	$183,708	$94,371	$2,210,250	$560,327
Privately financed	148,997	183,593	93,953	1,990,383	532,189
1-family	126,836	156,482	82,944	1,736,150	459,977
2-family [5]	7,224	8,290	4,134	97,120	27,453
Multifamily [6]	14,937	18,821	6,875	157,113	44,759
Federally financed [7]	332	115	418	219,867	28,138

[1] Includes value of Federal construction contracts awarded.
[2] See footnote 2, table 4, for source of urban estimates.
[3] Preliminary. [4] Revised.
[5] Includes 1- and 2-family dwellings with stores.
[6] Includes multifamily dwellings with stores.
[7] For number of, and estimated cost of, dwelling units contained in New York City Housing Authority projects but included here with federally financed housing, see table 4, footnotes 6 and 7.

Hours and Earnings

In October 1946 average hourly and weekly earnings in private building construction reached the highest level reported since January 1940 when monthly data first became available—$1.53 for hourly earnings and $59.20 for weekly earnings. Hourly and weekly pay were highest this October in the case of almost all reporting groups, with the exception of the excavation and foundation and the masonry groups. The earnings reported are for all classes of workers—skilled, semiskilled, and unskilled.

Electrical workers, with a longer average workweek and somewhat higher hourly earnings, as usual, topped all other groups in average weekly earnings in October 1946, averaging more than $70 for the first time in the nearly 7 years for which monthly data have been reported.

TABLE 6.—*Average hours and earnings on private construction projects for selected types of work, selected months of 1945 and 1946* [1]

[Subject to revision]

Type of work	Average hours per week			Average weekly earnings [2]			Average hourly earnings		
	October 1946	September 1946	October 1945	October 1946	September 1946	October 1945	October 1946	September 1946	October 1945
All types of work	39.2	39.3	(3)	$58.93	$58.39	(3)	$1.505	$1.485	(3)
Building construction	38.8	38.7	38.7	59.20	58.49	$54.05	1.526	1.510	$1.396
General contractors	38.5	38.4	37.6	56.39	55.64	49.84	1.463	1.450	1.327
Special building trades [4]	39.1	39.2	39.6	62.39	61.87	57.38	1.596	1.580	1.449
Plumbing and heating	40.1	40.2	41.2	63.89	63.70	58.40	1.593	1.584	1.417
Painting and decorating	38.4	38.6	39.0	62.16	62.06	57.57	1.620	1.609	1.477
Electrical work	40.8	41.1	40.3	70.59	69.66	63.70	1.732	1.696	1.581
Masonry	38.0	38.1	39.1	58.70	58.53	59.87	1.544	1.537	1.531
Plastering and lathing	38.5	38.3	36.5	66.43	65.21	56.04	1.727	1.703	1.537
Carpentry	39.1	39.8	40.4	59.95	58.68	56.68	1.531	1.473	1.403
Roofing and sheet metal	37.5	38.3	38.0	54.33	54.06	51.50	1.448	1.412	1.356
Excavation and foundation	37.9	38.4	39.6	51.85	54.88	52.71	1.369	1.431	1.332
Nonbuilding construction	41.0	42.2	(3)	57.59	57.90	(3)	1.403	1.372	(3)
Highway and streets	40.9	42.0	(3)	54.41	55.71	(3)	1.330	1.327	(3)
Heavy construction	41.0	42.6	(3)	59.56	59.86	(3)	1.453	1.407	(3)
Other	41.3	41.3	(3)	55.02	54.46	(3)	1.331	1.317	(3)

[1] Includes all firms reporting during the months shown (about 9,000) but not necessarily identical establishments.

[2] Hourly earnings when multiplied by weekly hours of work may not exactly equal weekly earnings because of rounding.

[3] Not available prior to February 1946.

[4] Includes types not shown separately.

Trends of Employment and Labor Turn-Over

Labor Force, November 1946

WHO IS COUNTED IN THE LABOR FORCE

Labor force.—Persons 14 years of age and over who are employed or unemployed during the census week (the week containing the eighth day of the month).

Employed.—Those who, during the census week, (1) work full or part time for pay or profit; (2) work without pay in a family enterprise (farm or business) at least 15 hours; or (3) have a job but do not work because of illness, vacation, labor-management dispute, bad weather, or lay-off with definite instructions to return to work within 30 days.

Unemployed.—Those not working, but seeking a job.

The civilian labor force, employment, and unemployment remained virtually unchanged between October and November, according to the Bureau of the Census Monthly Report on the Labor Force. In November 1946, approximately 58,970,000 persons were in the civilian labor force, including 57,040,000 employed and 1,930,000 unemployed.

Unemployment remained close to the 2-million mark for the fourth successive month. Approximately 4 out of 5 persons seeking work in November were men; nearly 2 out of 5 were veterans.

An increase of 10,000 in employment between October and November represented the net effect of divergent movements in agricultural and nonagricultural employment. The number of farm workers declined seasonally by 720,000 during the month as fall harvests were completed in many areas. Nonfarm employment expanded by 730,000, largely reflecting the continued inflow of veterans and the usual shifting of men and women from farm to nonfarm activities at this time of year.

Note on Census revision

The Census Bureau has revised its labor force estimates, July 1945 to October 1946, in order to take account of improved estimates of the male civilian population now available for this period. The main effect of the revision on the current estimates is to lower non-

agricultural employment by about 350,000. Revised estimates of labor force, employment, and unemployment are shown in the accompanying table. For more detail, see United States Bureau of the Census, Monthly Report on the Labor Force (MRLF–No. 54), December 16, 1946.

Revised estimates of total labor force in the United States, classified by employment status and sex, July 1945 to November 1945

[Source: U. S. Department of Commerce, Bureau of the Census]

Year and month	Estimated number (in thousands) of persons 14 years of age and over					
	Total labor force [1]	Civilian labor force	Unemployment	Civilian employment		
				Total	Agricultural	Nonagricultural
TOTAL: BOTH SEXES						
1945: July	67,450	55,350	950	54,400	9,900	44,500
August	66,470	54,460	830	53,630	9,090	44,540
September	64,770	53,050	1,650	51,400	8,840	42,560
October	63,770	53,170	1,560	51,610	8,810	42,800
November	62,410	53,190	1,740	51,450	8,380	43,070
December	60,920	53,130	1,970	51,160	7,160	44,000
1946: January	59,490	53,320	2,300	51,020	6,720	44,300
February	59,130	53,890	2,650	51,240	6,940	44,300
March	59,330	55,160	2,700	52,460	7,530	44,930
April	60,300	56,450	2,330	54,120	8,170	45,950
May	60,570	57,160	2,310	54,850	8,880	45,970
June	62,000	58,930	2,570	56,360	10,010	46,350
July	62,820	60,110	2,270	57,840	9,970	47,870
August	62,200	59,750	2,060	57,690	9,140	48,550
September	61,340	59,120	2,070	57,050	8,750	48,300
October	61,160	58,990	1,960	57,030	8,620	48,410
November	60,980	58,970	1,930	57,040	7,900	49,140
MALE						
1945: July	47,100	35,270	480	34,790	7,190	27,600
August	46,870	35,130	430	34,700	6,930	27,770
September	45,850	34,400	930	33,470	6,700	26,770
October	45,010	34,650	940	33,710	6,620	27,090
November	44,040	35,030	1,210	33,820	6,310	27,510
December	43,560	35,950	1,500	34,450	5,960	28,490
1946: January	43,220	37,160	1,770	35,390	5,840	29,550
February	43,020	37,890	2,140	35,750	6,010	29,740
March	43,240	38,870	2,190	36,680	6,370	30,310
April	43,630	39,860	1,870	37,990	6,810	31,180
May	43,820	40,480	1,890	38,590	7,100	31,490
June	44,670	41,660	2,010	39,650	7,610	32,040
July	45,370	42,710	1,760	40,950	7,810	33,140
August	44,990	42,580	1,600	40,980	7,320	33,660
September	44,040	41,850	1,580	40,270	6,790	33,480
October	43,970	41,820	1,550	40,270	6,770	33,500
November	43,940	41,950	1,520	40,430	6,380	34,050
FEMALE						
1945: July	20,350	20,080	470	19,610	2,710	16,900
August	19,600	19,330	400	18,930	2,160	16,770
September	18,920	18,650	720	17,930	2,140	15,790
October	18,760	18,520	620	17,900	2,190	15,710
November	18,370	18,160	530	17,630	2,070	15,560
December	17,360	17,180	470	16,710	1,200	15,510
1946: January	16,270	16,160	530	15,630	880	14,750
February	16,110	16,000	510	15,490	930	14,560
March	16,390	16,290	510	15,780	1,160	14,620
April	16,670	16,590	460	16,130	1,360	14,770
May	16,750	16,680	420	16,260	1,780	14,480
June	17,330	17,270	560	16,710	2,400	14,310
July	17,450	17,400	510	16,890	2,160	14,730
August	17,210	17,170	460	16,710	1,820	14,890
September	17,300	17,270	490	16,780	1,960	14,820
October	17,190	17,170	410	16,760	1,850	14,910
November	17,040	17,020	410	16,610	1,520	15,090

[1] Total labor force consists of the civilian labor force and the armed forces. All data exclude persons in institutions. Estimates of the armed forces during the Census week are projected from data on net strength as of the first of the month.

Summary of Employment Reports for November 1946

GAINS during November 1946 raised employment in nonagricultural establishments to practically the wartime peak of December 1943. Preliminary estimates indicate that seasonal increases for trade in December will raise the total above the high point of the war years.

The gain of 287,000 employees between October and November primarily reflected increases of more than 200,000 each in manufacturing and trade. The only declines were in contract construction (176,000) and in government (41,000).

Manufacturing employment was 14,970,000 in November, about 2½ million above the reconversion low in February 1946. Of the 209,000 added to factory pay rolls in November, 194,000 were production workers.

Industrial and Business Employment

By far the largest single gain in production-worker employment was in the food group, which normally experiences a seasonal decline at this time. The increase of 49,000 production workers in food manufacturing was concentrated in the slaughtering and meat-packing plants which expanded production schedules after the ending of price controls.

Other increases of more than 10,000 production workers each, between October and November, were reported by the iron and steel, nonelectrical machinery, textiles, and electrical machinery groups. Lesser increases were reported by all but two of the remaining groups with only apparel showing any decline.

Although employment in the automobile industry was only 4,000 above the October level, the number of production workers was 223,000 above a year ago. This was the largest gain over the year for a simple industry, with iron and steel and nonelectrical machinery following close behind.

TABLE 1.—*Estimated number of employees in nonagricultural establishments, by industry division*

Industry division	Estimated number of employees (in thousands)			
	November 1946	October 1946	September 1946	November 1945
Total estimated employment [1]	40,453	40,175	40,134	36,779
Manufacturing [2]	14,970	14,761	14,735	13,110
Mining	828	827	827	793
Contract construction and Federal force-account construction	1,864	2,040	2,103	1,014
Transportation and public utilities	4,007	3,987	3,949	3,871
Trade	8,268	8,039	7,918	7,571
Finance, service, and miscellaneous	5,244	5,208	5,155	4,845
Federal, State, and local government, excluding Federal force-account construction	5,272	5,313	5,447	5,575

[1] Estimates include all full- and part-time wage and salary workers in nonagricultural establishments who worked or received pay during the pay period ending nearest the 15th of the month. Proprietors, self-employed persons, domestic servants, and personnel of the armed forces are excluded.

[2] Estimates for manufacturing have been adjusted to levels indicated by final 1944 data made available by the Bureau of Employment Security of the Federal Security Agency and are comparable with the production-worker estimates shown in table 2.

TABLE 2.—*Estimated number of production workers and indexes of production-worker employment in manufacturing industries, by major industry group* [1]

Group	Estimated number of production workers (in thousands)		Production-worker indexes (1939=100)	
	November 1946	November 1945	November 1946	November 1945
All manufacturing	12,218	10,503	149.1	128.2
Durable goods	6,206	5,180	171.9	143.5
Nondurable goods	6,012	5,323	131.2	116.2
Iron and steel and their products	1,476	1,255	148.9	126.6
Electrical machinery	568	479	219.2	184.9
Machinery, except electrical	1,107	911	209.5	172.4
Transportation equipment, except automobiles	447	573	281.5	361.3
Automobiles	748	525	185.9	130.5
Nonferrous metals and their products	406	319	177.3	139.3
Lumber and timber basic products	642	484	152.8	115.0
Furniture and finished lumber products	401	321	122.1	97.7
Stone, clay, and glass products	411	313	140.0	106.5
Textile-mill products and other fiber manufactures	1,240	1,063	108.4	92.9
Apparel and other finished textile products	1,083	930	137.2	117.8
Leather and leather products	356	321	102.5	92.5
Food	1,123	1,085	131.4	127.0
Tobacco manufactures	91	83	97.6	89.2
Paper and allied products	379	326	142.9	122.9
Printing, publishing, and allied industries	399	347	121.6	105.9
Chemicals and allied products	501	487	173.7	169.1
Products of petroleum and coal	151	139	142.6	131.3
Rubber products	245	194	202.9	160.1
Miscellaneous industries	444	348	181.5	142.2

[1] The estimates and indexes presented in this table have been adjusted to levels indicated by final 1944 data made available by the Bureau of Employment Security of the Federal Security Agency.

Public Employment

From the end of hostilities to November 1, 1946, more than 1.6 million persons have left the pay roll of Federal war agencies—half a million outside the country and 1.1 million within the continental area. Although most of this numerical decline occurred in the War and Navy Departments, a gradual climb on the part of the War Assets Administration (to a total of 57,000 on November 1) masked a drop of almost three-fifths in the employment of the other war agencies. The drop reflects the abolition of 14 agencies, including the Office of Censorship, Office of War Information, and War Manpower Commission, etc., as well as the gradual dismantling of some of the others.

Moving in the opposite direction, the Veterans Administration and Post Office Department led the agencies in the peacetime group with a gain of 200,000 during the same postwar period, while others in this group, such as the State and Labor Departments, which are absorbing the dwindling functions of abolished war agencies, had a net addition of 40,000 workers.

In spite of these opposing trends in the war and the peacetime agencies since VJ-day, war agencies had over half the 2,438,000 total Federal employment on November 1, 1946. This figure was 34,000 lower than on October 1, but it does not represent a stabilized postwar level, further retrenchment being required on the part of both war and peacetime agencies by congressional action taken last June and by continued Budget Bureau vigilance over employment ceilings.

In the postwar period under discussion, two women were dropped from full-time Federal positions within continental United States for every man dropped; until on November 1, 1946, women occupied only 29 percent or substantially less than a third of such positions, as compared with 40 percent at the war's end.

Within the Washington, D. C., area, the men-women changes have been even more dramatic—one man has actually been added to the pay roll for every three women taken off. This has reduced the proportion of women in Washington from 61 percent at the war's end to 48 percent on November 1, 1946.

Unfortunately it is not known how many of the women leaving the Government service have left voluntarily.

The Federal pay rolls shown here consist, for the most part, of two biweekly pay rolls, or pay for 4 weeks. Three biweekly pay periods ended in November 1946, however, and as a result the pay rolls are abnormally high and cannot be compared with the pay rolls for other months. At present a method of adjusting Federal pay rolls to a calendar month basis is being worked out and the adjusted figures

for the period July 1945 to date will be presented in an early issue of the Monthly Labor Review.

Source of data.—Data for the Federal executive service are reported through the Civil Service Commission, whereas data for the legislative and judicial services and Government corporations are reported to the Bureau of Labor Statistics. Employment on Federal force-account construction is included in both the executive branch (tables 3 and 4) and in construction employment (table 2 in the section, Construction).

Military personnel and pay figures are reported monthly to the Bureau of Labor Statistics but are published here only quarterly.

Mimeographed tables giving civilian employment and military personnel and pay, monthly, 1939 to date, and civilian pay rolls, monthly, 1943 to date, are available upon request.

TABLE 3.—*Employment and pay rolls for regular Federal services and for Government corporations in selected months*

Year and month	Total	Executive [1]			Legislative	Judicial	Government corporations [2]
		All areas	Continental United States				
			Total	Washington, D. C., area			
	Employment [3]						
November 1939	988,312	954,966	911,902	126,818	5,418	2,357	25,571
November 1940	1,158,413	1,123,605	1,054,009	149,782	5,892	2,529	26,387
November 1941	1,617,385	1,578,219	1,453,350	194,911	6,242	2,569	30,355
November 1942	2,807,536	2,764,752	2,533,167	284,804	6,319	2,666	33,799
November 1943	3,243,945	3,198,907	2,818,494	265,694	6,110	2,647	36,281
November 1944	3,400,320	3,356,254	2,878,212	258,107	6,253	2,646	35,167
November 1945	3,300,038	3,256,349	2,480,671	232,577	6,373	2,942	34,374
September 1946	2,554,824	2,511,979	2,200,271	232,602	6,825	3,075	32,945
October 1946	2,471,435	2,428,901	2,121,526	225,862	6,902	3,058	32,574
November 1946 [4]	2,437,900	2,395,261	2,086,710	224,742	6,896	3,077	32,666
	Pay rolls (in thousands) [5]						
November 1943	$684,513	$676,703	$617,599	$55,093	$1,490	$774	$5,546
November 1944	675,357	667,712	613,754	54,200	1,525	781	5,339
November 1945 [4]	571,666	563,626	509,257	50,625	1,757	912	5,371
September 1946 [4]	542,523	533,688	498,345	56,998	2,112	1,136	5,587
October 1946 [4]	530,725	521,740	486,156	56,874	2,115	1,083	5,787
November 1946 [4]	621,313	611,858	571,650	78,489	2,364	1,358	5,733

[1] Includes employees on force-account construction. Beginning July 1945, data include clerks at third-class post offices who were previously working on a contract basis. Data exclude substitute rural mail carriers.

[2] Data are for employees of the Panama Railroad Company, the Federal Reserve banks, and banks of the Farm Credit Administration. Data for other Government corporations are included under the executive service.

[3] Employment is as of the first of the calendar month.

[4] Subject to revision.

[5] Data are for all pay periods ending within the calendar month. Beginning July 1945, this ordinarily represents pay for 4 weeks but in November 1946 it represents pay for 6 weeks for most employees.

TABLE 4.—*Employment and pay rolls for the executive branch of the Federal Government in selected months* [1]

Year and month	All agencies	War agencies [2]			Other agencies [3]		
		Total	Continental United States	Outside continental United States [4]	Total	Continental United States	Outside continental United States [4]
	Employment [5]						
November 1939	954,966	233,860	201,195	32,665	721,106	710,707	10,399
November 1940	1,123,605	373,587	316,234	57,353	750,018	737,775	12,243
November 1941	1,578,219	757,587	646,348	111,239	820,632	807,002	13,630
November 1942	2,764,752	1,917,992	1,700,985	217,007	846,760	832,182	14,578
November 1943	3,198,907	2,377,914	2,014,896	363,018	820,993	803,598	17,395
November 1944	3,356,254	2,507,804	2,045,720	462,084	848,450	832,492	15,958
November 1945	3,256,349	2,290,537	1,538,319	752,218	965,812	942,352	23,460
September 1946	2,511,979	1,358,426	1,074,344	284,082	1,153,553	1,125,927	27,626
October 1946	2,428,901	1,271,976	992,574	279,402	1,156,925	1,128,952	27,973
November 1946 [6]	2,395,261	1,229,368	949,115	280,253	1,165,893	1,137,595	28,298
	Pay rolls (in thousands) [7]						
November 1943	$676,703	$514,835	$459,244	$55,591	$161,868	$158,355	$3,513
November 1944	667,712	499,627	449,107	50,520	168,085	164,647	3,438
November 1945 [6]	563,626	364,473	314,929	49,544	199,153	194,328	4,825
September 1946 [6]	533,688	285,596	256,061	29,535	248,092	242,285	5,807
October 1946 [6]	521,740	271,677	241,950	29,727	250,063	244,207	5,856
November 1946 [6]	611,858	290,634	259,062	31,572	321,224	312,588	8,636

[1] Includes employees on force-account construction.
[2] Covers War and Navy Departments, Maritime Commission, National Advisory Committee for Aeronautics, The Panama Canal, Price Decontrol Board, Philippine War Damage Commission, and the emergency war agencies.
[3] Beginning July 1945, data include clerks at third-class post offices who previously were working on a contract basis. Data exclude substitute rural mail carriers.
[4] Includes Alaska and the Panama Canal Zone.
[5] Employment is as of the first of the calendar month.
[6] Subject to revision.
[7] Data are for all pay periods ending within the calendar month. Beginning July 1945, this ordinarily represents pay for 4 weeks, but in November 1946 it represents pay for 6 weeks for most employees.

Detailed Reports for Industrial and Business Employment, October 1946

MONTHLY reports on employment and pay rolls are presented below for more than 150 manufacturing industries and for 27 nonmanufacturing industries including water transportation and class 1 steam railroads. Data for both manufacturing and nonmanufacturing industries are based on reports of the number of employees and amount of pay rolls for the period ending nearest the 15th of the month.

TABLE 1.—*Estimated number of production workers in manufacturing industries* [1]

Industry group and industry	Estimated number of production workers (in thousands)			
	October 1946	September 1946	August 1946	October 1945
All manufacturing	12,021	12,016	11,882	10,450
Durable goods	6,118	6,089	6,001	5,151
Nondurable goods	5,903	5,927	5,881	5,299
Durable goods				
Iron and steel and their products	1,442	1,456	1,433	1,241
Blast furnaces, steel works, and rolling mills	473.5	480.1	480.0	426.1
Gray-iron and semisteel castings	81.9	82.1	81.6	68.0
Malleable-iron castings	24.4	24.4	24.1	21.9
Steel castings	48.8	50.7	50.2	53.4
Cast-iron pipe and fittings	19.1	18.7	16.9	13.8
Tin cans and other tinware	42.2	44.8	44.4	35.8
Wire drawn from purchased rods	29.1	29.8	29.1	27.8
Wirework	41.3	41.3	39.5	28.3
Cutlery and edge tools	25.3	25.9	25.7	21.6
Tools (except edge tools, machine tools, files, and saws)	26.8	26.4	25.6	21.9
Hardware	48.7	47.7	45.9	34.8
Plumbers' supplies	23.5	28.1	27.1	18.1
Stoves, oil burners, and heating equipment not elsewhere classified	60.3	59.4	56.8	46.7
Steam and hot-water heating apparatus and steam fittings	50.2	48.9	48.0	40.3
Stamped and enameled ware and galvanizing	82.3	82.0	79.0	61.0
Fabricated structural and ornamental metalwork	54.6	55.6	55.5	41.3
Metal doors, sash, frames, molding, and trim	9.9	10.2	9.8	7.2
Bolts, nuts, washers, and rivets	20.6	20.4	18.7	19.6
Forgings, iron and steel	26.4	26.2	26.3	24.3
Wrought pipe, welded and heavy-riveted	13.1	13.4	12.8	13.8
Screw-machine products and wood screws	29.0	28.5	27.7	25.0
Steel barrels, kegs, and drums	6.3	6.2	6.4	5.3
Firearms	14.2	14.2	14.0	11.2
Electrical machinery	559	544	526	467
Electrical equipment	307.6	300.1	290.7	291.0
Radios and phonographs	89.0	85.5	82.8	56.0
Communication equipment	91.8	90.2	86.4	65.4
Machinery, except electrical	1,091	1,070	1,051	909
Machinery and machine-shop products	370.3	363.2	356.6	330.2
Engines and turbines	44.5	45.3	44.9	42.9
Tractors	53.7	52.0	52.8	49.5
Agricultural machinery, excluding tractors	42.3	41.2	40.7	35.9
Machine tools	62.0	62.0	61.3	57.9
Machine-tool accessories	52.2	51.5	50.2	45.9
Textile machinery	33.9	33.4	32.7	25.5
Pumps and pumping equipment	57.4	57.5	56.9	51.6
Typewriters	21.3	20.5	19.4	12.6
Cash registers, adding and calculating machines	35.4	34.7	33.2	24.4
Washing machines, wringers and driers, domestic	12.0	11.9	11.5	7.4
Sewing machines, domestic and industrial	10.2	10.1	9.7	7.5
Refrigerators and refrigeration equipment	64.8	61.4	60.5	34.8
Transportation equipment, except automobiles	442	441	451	667
Locomotives	27.4	27.1	26.8	29.9
Cars, electric- and steam-railroad	48.8	48.1	46.6	41.7
Aircraft and parts, excluding aircraft engines	142.0	139.5	134.2	126.9
Aircraft engines	28.6	27.6	27.5	29.4
Shipbuilding and boatbuilding	136.9	141.3	158.3	368.2
Motorcycles, bicycles, and parts	11.5	11.0	10.6	6.5

See footnote at end of table.

TABLE 1.—*Estimated number of production workers in manufacturing industries* [1]—Continued

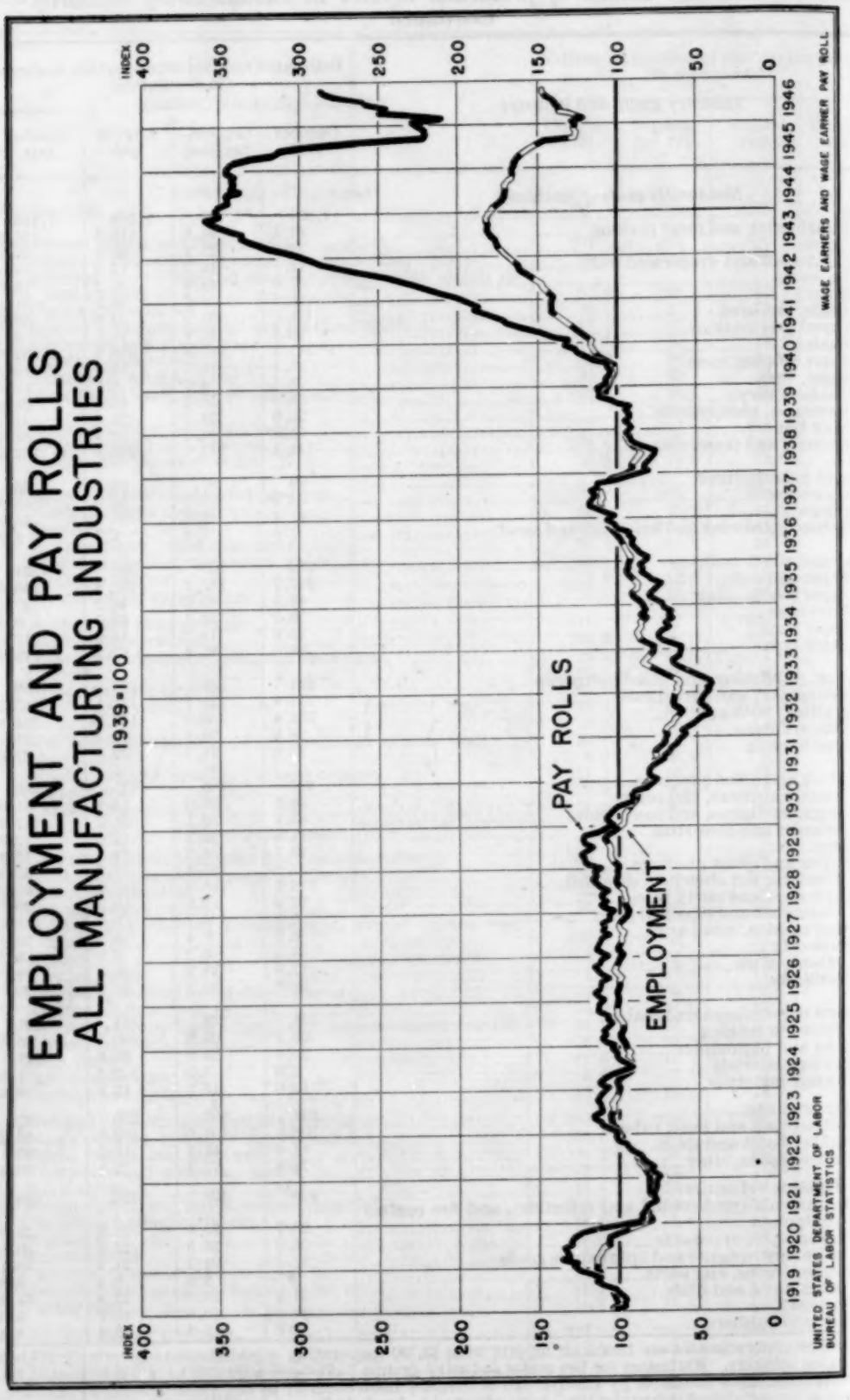
Industry group and industry	Estimated number of production workers (in thousands)			
	October 1946	September 1946	August 1946	October 1945
Durable goods—Continued				
Automobiles	745	760	728	460
Nonferrous metals and their products	402	396	392	305
Smelting and refining, primary, of nonferrous metals	38.6	37.5	36.9	34.6
Alloying and rolling and drawing of nonferrous metals except aluminum	61.4	61.5	61.1	50.1
Clocks and watches	28.1	27.8	27.5	20.9
Jewelry (precious metals) and jewelers' findings	17.5	17.9	17.4	14.2
Silverware and plated ware	14.7	14.6	14.2	10.1
Lighting equipment	31.2	30.6	30.1	19.7
Aluminum manufactures	50.6	49.7	49.4	36.0
Sheet-metal work, not elsewhere classified	26.8	26.1	26.2	21.3
Lumber and timber basic products	633	627	628	476
Sawmills and logging camps	233.1	233.0	236.7	191.5
Planing and plywood mills	75.6	74.6	73.4	60.6
Furniture and finished lumber products	393	388	388	307
Mattresses and bedsprings	22.8	22.7	21.9	14.3
Furniture	166.7	164.4	165.3	130.5
Wooden boxes, other than cigar	25.5	25.3	25.4	23.3
Caskets and other morticians' goods	13.1	13.2	13.1	11.8
Wood preserving	12.6	12.6	12.5	10.0
Wood, turned and shaped	22.9	22.8	23.0	19.8
Stone, clay, and glass products	411	407	404	319
Glass and glassware	105.4	104.3	103.7	86.6
Glass products made from purchased glass	12.4	12.0	12.0	10.3
Cement	28.6	28.9	29.1	20.3
Brick, tile, and terra cotta	63.6	63.4	63.4	44.6
Pottery and related products	48.2	48.0	47.2	38.8
Gypsum	5.9	5.9	5.8	4.2
Wallboard, plaster (except gypsum), and mineral wool	10.8	10.8	10.9	9.2
Lime	8.9	8.9	8.9	7.5
Marble, granite, slate, and other products	17.2	17.4	17.3	12.9
Abrasives	19.8	19.3	19.1	16.6
Asbestos products	21.4	20.5	20.1	17.5
Nondurable goods				
Textile-mill products and other fiber manufactures	1,224	1,212	1,197	1,057
Cotton manufactures, except smallwares	459.5	455.8	452.3	404.3
Cotton smallwares	14.5	14.3	14.1	12.6
Silk and rayon goods	93.8	93.0	92.6	85.2
Woolen and worsted manufactures, except dyeing and finishing	160.5	159.7	155.8	139.5
Hosiery	115.8	113.8	114.1	98.3
Knitted cloth	11.2	11.1	11.2	10.2
Knitted outerwear and knitted gloves	30.8	30.4	29.7	27.3
Knitted underwear	35.2	34.9	35.2	33.3
Dyeing and finishing textiles, including woolen and worsted	64.1	64.1	63.8	53.5
Carpets and rugs, wool	25.0	24.6	24.2	17.9
Hats, fur-felt	11.5	11.3	9.0	9.6
Jute goods, except felts	3.8	3.8	3.7	3.5
Cordage and twine	15.4	15.2	14.9	14.0
Apparel and other finished textile products	1,085	1,068	1,049	928
Men's clothing, not elsewhere classified	199.6	197.1	197.3	180.1
Shirts, collars, and nightwear	54.8	54.4	54.5	49.4
Underwear and neckwear, men's	12.7	12.4	11.9	10.9
Work shirts	13.4	13.5	13.3	13.2
Women's clothing, not elsewhere classified	216.9	216.5	211.5	205.1
Corsets and allied garments	16.4	16.0	15.9	14.5
Millinery	19.0	19.2	18.6	18.3
Handkerchiefs	2.4	2.3	2.3	2.7
Curtains, draperies, and bedspreads	15.1	14.0	13.9	11.0
Housefurnishing, other than curtains, etc.	11.2	11.0	11.1	8.6
Textile bags	14.1	13.5	13.6	14.8
Leather and leather products	352	355	354	313
Leather	41.6	42.1	41.9	39.8
Boot and shoe cut stock and findings	17.7	17.7	18.2	15.9
Boots and shoes	190.4	193.5	191.4	169.5
Leather gloves and mittens	11.0	11.0	11.1	11.1
Trunks and suitcases	14.7	14.6	14.8	11.4

See footnote at end of table.

TABLE 1.—*Estimated number of production workers in manufacturing industries*[1]—Continued

Industry group and industry	Estimated number of production workers (in thousands)			
	October 1946	September 1946	August 1946	October 1945
***Nondurable goods*—Continued**				
Food	1,074	1,157	1,166	1,116
Slaughtering and meat packing	84.4	94.8	138.4	126.9
Butter	24.9	25.1	26.2	22.8
Condensed and evaporated milk	13.7	14.2	15.0	14.0
Ice cream	17.6	18.9	20.2	16.0
Flour	30.5	29.7	29.5	31.1
Feeds, prepared	21.7	21.0	22.4	23.3
Cereal preparations	10.8	10.9	10.1	8.1
Baking	241.3	241.4	236.9	252.8
Sugar refining, cane	11.1	12.3	14.0	12.2
Sugar, beet	19.5	8.0	6.8	19.1
Confectionery	55.8	52.2	48.7	53.6
Beverages, nonalcoholic	23.0	24.1	25.6	24.1
Malt liquors	53.0	54.2	52.4	54.4
Canning and preserving	172.4	243.9	206.5	167.8
Tobacco manufactures	89	87	86	86
Cigarettes	33.9	33.7	33.6	35.9
Cigars	41.4	40.0	38.7	35.9
Tobacco (chewing and smoking) and snuff	7.8	7.6	7.7	8.5
Paper and allied products	372	368	366	321
Paper and pulp	167.7	167.7	167.8	145.5
Paper goods, other	47.3	46.6	46.2	43.1
Envelopes	10.5	10.4	10.3	9.7
Paper bags	15.0	14.7	14.0	12.6
Paper boxes	89.6	87.4	87.2	79.2
Printing, publishing, and allied industries	394	386	384	336
Newspapers and periodicals	133.9	131.7	131.1	115.3
Printing, book and job	162.8	158.9	157.9	138.9
Lithographing	29.9	29.5	29.1	25.1
Bookbinding	33.0	31.8	32.0	27.8
Chemicals and allied products	491	484	475	486
Paints, varnishes, and colors	36.0	36.0	35.9	31.0
Drugs, medicines, and insecticides	53.1	52.1	51.7	47.6
Perfumes and cosmetics	12.6	12.2	12.6	12.6
Soap	13.7	14.2	14.1	13.4
Rayon and allied products	57.8	57.4	57.3	55.5
Chemicals, not elsewhere classified	118.1	116.6	117.2	109.2
Explosives and safety fuses	12.9	12.8	12.6	29.7
Compressed and liquefied gases	5.3	5.7	5.9	5.6
Ammunition, small-arms	6.9	7.4	4.9	10.4
Fireworks	3.4	3.2	2.9	3.2
Cottonseed oil	17.8	13.3	10.8	18.0
Fertilizers	21.7	22.3	20.9	20.7
Products of petroleum and coal	151	152	152	131
Petroleum refining	99.2	99.8	100.1	88.5
Coke and byproducts	25.8	25.9	25.8	21.7
Paving materials	2.0	2.3	2.2	1.8
Roofing materials	12.6	12.6	12.2	9.6
Rubber products	235	230	227	187
Rubber tires and inner tubes	105.6	104.0	102.8	88.2
Rubber boots and shoes	18.4	18.1	18.0	15.1
Rubber goods, other	74.8	73.3	72.1	59.4
Miscellaneous industries	436	428	425	338
Instruments (professional and scientific), and fire control equipment	20.7	20.9	21.2	23.9
Photographic apparatus	25.5	25.5	25.6	20.6
Optical instruments and ophthalmic goods	21.5	21.2	21.2	19.1
Pianos, organs, and parts	9.7	9.4	9.4	5.3
Games, toys, and dolls	24.2	23.5	22.8	14.4
Buttons	10.6	10.6	10.6	9.0
Fire extinguishers	2.0	2.1	2.1	2.3

[1] October 1946 estimates are based on reports from 33,700 cooperating establishments covering 7,378,000 production workers. Estimates for the major industry groups have been adjusted to levels indicated by final 1944 data made available by the Bureau of Employment Security of the Federal Security Agency. Estimates for individual industries have been adjusted to levels indicated by the 1939 Census of Manufactures but not to Federal Security Agency data. For this reason, together with the fact that this Bureau has not prepared estimates for certain industries, the sum of the individual industry estimates will not agree with the totals shown for the major industry groups.


EMPLOYMENT AND PAY ROLLS
ALL MANUFACTURING INDUSTRIES
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UNITED STATES DEPARTMENT OF LABOR
BUREAU OF LABOR STATISTICS
WAGE EARNERS AND WAGE EARNER PAY ROLL

TABLE 2.—*Indexes of production-worker employment and pay rolls in manufacturing industries* [1]

[1939 average = 100]

Industry group and industry	Employment indexes				Pay-roll indexes			
	October 1946	September 1946	August 1946	October 1945	October 1946	September 1946	August 1946	October 1945
All manufacturing	146.7	146.7	145.0	127.6	286.0	284.2	278.3	222.9
Durable goods	169.4	168.6	166.2	142.6	318.2	314.4	307.0	243.7
Nondurable goods	128.9	129.4	128.4	115.7	254.6	254.6	250.2	202.6
Durable goods								
Iron and steel and their products	145.5	146.9	144.5	125.2	263.2	263.2	255.8	207.3
Blast furnaces, steel works, and rolling mills	121.9	123.6	123.6	109.7	203.2	206.3	204.0	169.4
Gray-iron and semisteel castings	140.2	140.5	139.6	116.5	294.0	291.7	280.5	222.3
Malleable-iron castings	135.5	135.1	133.6	121.5	292.5	287.5	282.6	235.4
Steel castings	162.0	168.5	166.9	177.4	289.6	297.5	294.8	289.7
Cast-iron pipe and fittings	115.7	113.4	102.2	83.5	253.5	239.9	208.6	164.5
Tin cans and other tinware	132.9	141.1	139.9	112.7	248.8	274.1	270.1	186.2
Wire drawn from purchased rods	132.5	135.7	132.3	126.3	232.2	231.8	219.2	189.2
Wirework	135.9	136.0	130.1	93.0	265.1	270.9	256.5	173.1
Cutlery and edge tools	164.1	167.7	166.5	140.3	369.5	364.6	354.9	272.5
Tools (except edge tools, machine tools, files, and saws)	174.9	172.2	167.2	142.8	355.8	340.8	326.2	254.1
Hardware	136.7	133.8	128.7	97.7	279.7	267.2	254.3	183.9
Plumbers' supplies	95.3	113.9	110.0	73.3	171.5	196.7	191.0	118.0
Stoves, oil burners, and heating equipment not elsewhere classified	130.8	128.8	123.0	101.4	258.9	247.5	234.3	179.7
Steam and hot-water heating apparatus and steam fittings	165.7	161.3	158.2	133.1	325.5	306.7	289.6	230.2
Stamped and enameled ware and galvanizing	148.2	147.6	142.2	109.8	302.7	291.0	279.9	200.1
Fabricated structural and ornamental metalwork	153.7	156.7	156.1	116.3	272.0	273.9	271.7	186.7
Metal doors, sash, frames, molding, and trim	127.4	131.3	126.7	92.4	241.2	250.1	233.4	155.7
Bolts, nuts, washers, and rivets	143.8	142.9	130.6	136.7	253.9	246.2	227.7	248.0
Forgings, iron and steel	171.8	170.1	170.9	158.3	313.4	301.1	303.8	271.1
Wrought pipe, welded and heavy-riveted	156.1	159.7	153.4	164.3	262.8	281.3	270.7	253.0
Screw-machine products and wood screws	171.6	168.3	163.9	147.6	349.0	332.5	323.7	267.2
Steel barrels, kegs, and drums	103.1	102.7	106.0	87.3	229.5	214.5	227.4	154.6
Firearms	284.3	284.1	281.0	223.0	553.2	573.2	530.8	399.0
Electrical machinery	215.9	210.1	202.8	180.1	395.7	385.2	365.1	289.1
Electrical equipment	170.1	166.0	160.8	161.0	303.7	297.7	283.3	254.2
Radios and phonographs	204.6	196.5	190.3	128.6	417.8	400.9	376.9	218.2
Communication equipment	285.8	280.8	269.0	203.7	526.7	509.9	483.4	323.3
Machinery, except electrical	206.5	202.5	199.0	172.1	373.5	362.2	348.8	284.1
Machinery and machine-shop products	183.0	179.5	176.2	163.2	333.5	322.3	314.2	268.4
Engines and turbines	238.6	242.6	240.9	230.6	478.7	484.5	453.7	379.5
Tractors	171.8	166.4	168.7	158.1	269.0	254.1	256.5	220.0
Agricultural machinery, excluding tractors	152.1	148.1	146.4	129.0	277.2	269.8	256.7	229.6
Machine tools	169.2	169.2	167.5	158.1	291.9	285.5	281.4	254.9
Machine-tool accessories	207.5	204.8	199.5	182.3	341.5	336.0	316.3	270.7
Textile machinery	154.7	152.3	149.2	116.5	298.3	290.5	277.9	215.2
Pumps and pumping equipment	237.0	237.1	234.6	213.0	452.8	444.0	438.4	386.0
Typewriters	131.6	126.6	119.5	77.7	261.6	248.1	228.2	144.6
Cash registers, adding and calculating machines	180.0	176.1	168.9	123.9	336.9	333.2	292.8	207.1
Washing machines, wringers and driers, domestic	160.3	158.7	153.8	99.0	301.2	287.9	269.5	157.9
Sewing machines, domestic and industrial	130.5	128.3	123.2	95.9	254.6	243.1	238.9	191.0
Refrigerators and refrigeration equipment	184.3	174.7	172.1	99.1	316.7	298.2	288.2	158.6
Transportation equipment, except automobiles	278.7	278.1	284.0	420.4	523.9	508.3	533.0	713.5
Locomotives	423.6	419.4	414.0	461.5	895.6	846.8	826.8	921.4
Cars, electric- and steam-railroad	198.8	196.1	190.1	170.0	388.3	364.9	362.0	292.5
Aircraft and parts, excluding aircraft engines	357.8	351.6	338.3	319.9	672.6	663.9	640.8	537.4
Aircraft engines	321.8	310.5	309.3	331.1	530.2	507.8	498.3	444.3
Shipbuilding and boatbuilding	197.7	204.1	228.6	531.8	361.2	352.5	421.5	893.4
Motorcycles, bicycles, and parts	165.0	158.0	152.7	93.6	317.5	290.9	272.1	151.6
Automobiles	185.1	188.9	180.9	114.4	308.7	319.5	307.4	171.8
Nonferrous metals and their products	175.4	172.9	170.9	133.0	326.3	319.6	312.4	230.4
Smelting and refining, primary, of nonferrous metals	139.9	135.6	133.6	125.3	250.6	247.1	239.5	222.2
Alloying and rolling and drawing of nonferrous metals except aluminum	158.1	158.5	157.4	129.2	284.1	284.4	283.0	223.4
Clocks and watches	138.7	136.8	135.5	102.8	303.7	289.7	280.8	189.2
Jewelry (precious metals) and jewelers' findings	120.9	123.8	120.6	98.1	235.7	237.3	221.1	169.3
Silverware and plated ware	121.6	120.0	117.2	83.0	257.5	250.9	232.7	150.5
Lighting equipment	152.3	149.2	146.8	96.2	264.6	260.6	252.5	155.4
Aluminum manufactures	214.9	211.0	209.6	152.9	362.0	358.1	351.3	235.0
Sheet-metal work, not elsewhere classified	142.9	139.3	139.5	113.8	284.6	261.7	269.0	200.3

See footnotes at end of table.

TABLE 2.—*Indexes of production-worker employment and pay rolls in manufacturing industries* [1]—Continued

[1939 average=100]

Industry group and industry	Employment indexes				Pay-roll indexes			
	October 1946	September 1946	August 1946	October 1945	October 1946	September 1946	August 1946	October 1945
Durable goods—Continued								
Lumber and timber basic products	150.7	149.2	149.4	113.3	313.5	306.9	307.1	199.0
Sawmills and logging camps	80.9	80.9	82.2	66.5	168.9	168.1	170.8	117.4
Planing and plywood mills	104.1	102.7	101.0	83.4	208.1	199.6	196.2	140.4
Furniture and finished lumber products	119.8	118.2	118.1	93.7	252.7	243.4	239.3	168.8
Mattresses and bedsprings	124.3	123.6	119.2	77.8	251.8	238.4	223.4	130.0
Furniture	104.7	103.3	103.9	82.0	220.3	212.1	209.7	147.1
Wooden boxes, other than cigar	100.6	99.8	100.3	91.7	225.7	218.4	221.3	177.4
Caskets and other morticians' goods	105.6	106.0	105.1	95.0	193.0	194.0	185.2	156.9
Wood preserving	111.7	112.3	110.9	88.9	269.6	266.4	255.1	200.4
Wood, turned and shaped	104.2	103.9	104.6	90.2	219.1	212.5	213.9	161.4
Stone, clay, and glass products	139.9	138.7	137.8	108.8	264.0	259.8	253.2	183.2
Glass and glassware	150.9	149.4	148.5	124.0	274.2	268.9	255.0	196.1
Glass products made from purchased glass	123.7	119.7	119.8	102.9	239.6	222.9	227.4	183.0
Cement	120.2	121.5	122.0	85.1	205.4	212.5	207.0	139.4
Brick, tile, and terra cotta	112.1	111.7	111.7	78.5	228.0	224.1	219.8	133.4
Pottery and related products	145.5	145.1	142.6	117.1	262.0	257.7	252.4	186.7
Gypsum	119.6	119.7	117.6	84.3	232.1	231.0	226.9	148.0
Wallboard, plaster (except gypsum), and mineral wool	132.7	133.0	134.9	113.4	278.7	283.9	280.0	220.5
Lime	94.3	93.8	93.7	78.8	217.7	219.5	216.5	166.8
Marble, granite, slate, and other products	92.8	94.1	93.4	69.5	155.8	152.9	154.8	107.2
Abrasives	256.2	249.7	246.5	214.5	407.8	400.0	406.2	327.1
Asbestos products	134.7	129.0	126.3	110.3	289.5	273.7	270.0	215.8
Nondurable goods								
Textile-mill products and other fiber manufactures	107.0	106.0	104.7	92.4	242.9	237.2	231.0	171.3
Cotton manufactures, except smallwares	116.0	115.1	114.2	102.1	285.4	281.7	275.5	198.6
Cotton smallwares	108.8	107.5	105.8	94.5	228.7	222.0	220.3	167.4
Silk and rayon goods	78.3	77.6	77.2	71.1	189.3	180.9	181.4	143.0
Woolen and worsted manufactures, except dyeing and finishing	107.5	107.0	104.4	93.5	243.7	242.7	234.1	178.3
Hosiery	72.8	71.6	71.7	61.8	150.4	143.7	141.3	105.3
Knitted cloth	103.0	101.8	102.4	93.1	217.2	214.4	213.1	176.6
Knitted outerwear and knitted gloves	109.6	108.0	105.8	97.0	243.9	234.0	220.1	187.6
Knitted underwear	91.3	90.6	91.2	86.3	203.9	199.4	196.1	161.1
Dyeing and finishing textiles, including woolen and worsted	95.9	95.9	95.4	80.0	195.2	186.8	187.6	137.1
Carpets and rugs, wool	97.9	96.1	94.7	69.8	196.8	182.5	173.0	114.9
Hats, fur-felt	79.1	78.0	61.8	65.7	182.0	181.3	137.9	135.8
Jute goods, except felts	106.4	105.7	103.7	98.0	239.4	237.4	225.8	193.1
Cordage and twine	127.2	125.5	122.8	115.7	268.5	266.2	255.9	217.9
Apparel and other finished textile products	137.4	135.3	132.9	117.5	288.9	288.2	277.5	213.5
Men's clothing, not elsewhere classified	91.3	90.2	90.2	82.4	189.4	186.8	182.7	141.0
Shirts, collars, and nightwear	77.8	77.3	77.3	70.1	172.7	167.6	162.7	131.4
Underwear and neckwear, men's	78.7	76.8	73.8	67.5	197.2	191.1	175.0	141.7
Work shirts	99.7	100.6	98.9	98.5	224.4	219.3	214.8	201.1
Women's clothing, not elsewhere classified	79.9	79.7	77.9	75.5	170.5	176.0	169.8	141.9
Corsets and allied garments	87.3	85.0	84.7	77.5	183.1	171.8	168.6	139.0
Millinery	78.4	79.0	76.7	75.3	138.7	147.1	137.5	135.4
Handkerchiefs	48.6	46.7	47.3	54.8	108.8	100.7	103.0	101.7
Curtains, draperies, and bedspreads	89.2	82.9	82.0	65.1	196.9	176.1	169.5	127.7
Housefurnishings, other than curtains, etc	105.1	103.7	104.8	81.3	200.2	218.1	214.6	142.2
Textile bags	117.4	112.2	113.7	123.2	224.1	210.0	203.2	205.4
Leather and leather products	101.5	102.4	102.0	90.3	198.1	203.3	198.2	165.0
Leather	88.1	89.1	88.6	84.2	158.7	160.2	161.1	151.1
Boot and shoe cut stock and findings	94.0	93.7	96.6	84.3	168.5	168.4	181.0	138.1
Boots and shoes	87.3	88.8	87.8	77.7	175.4	182.4	175.4	144.2
Leather gloves and mittens	109.8	109.9	111.5	111.0	219.6	220.6	214.7	197.6
Trunks and suitcases	176.6	175.0	177.9	136.6	346.1	333.6	333.0	243.6

See footnotes at end of table.

TABLE 2.—*Indexes of production-worker employment and pay rolls in manufacturing industries* [1]—Continued

[1939 average=100]

Industry group and industry	Employment indexes				Pay-roll indexes			
	October 1946	September 1946	August 1946	October 1945	October 1946	September 1946	August 1946	October 1945
Nondurable goods—Continued								
Food	125.7	135.4	136.5	130.6	228.6	242.7	250.3	215.9
Slaughtering and meat packing	70.0	78.6	114.8	105.3	110.5	118.2	202.3	173.1
Butter	138.5	139.8	145.8	127.0	256.1	258.7	265.0	204.1
Condensed and evaporated milk	140.7	146.6	154.9	144.0	264.9	279.9	293.2	235.7
Ice cream	111.9	120.2	128.8	101.9	194.9	204.0	215.7	153.0
Flour	123.3	119.9	118.9	125.7	255.1	249.1	238.6	224.1
Feeds, prepared	140.7	136.2	145.7	151.5	268.2	261.1	275.2	262.3
Cereal preparations	145.1	146.0	134.8	108.6	274.7	269.6	244.4	194.9
Baking	104.6	104.6	102.7	109.6	190.8	187.5	184.1	176.8
Sugar refining, cane	78.3	86.9	98.8	85.9	123.7	138.3	162.5	127.2
Sugar, beet [3]	187.1	76.9	65.6	183.7	304.4	152.4	108.6	256.7
Confectionery	112.1	104.9	98.0	107.8	212.1	204.4	186.6	188.0
Beverages, nonalcoholic	108.3	113.2	120.6	113.1	161.6	170.6	185.0	153.4
Malt liquors	146.7	150.2	145.2	150.8	235.4	244.2	232.3	226.2
Canning and preserving	128.2	181.4	153.5	124.8	323.8	465.4	387.4	251.7
Tobacco manufactures	95.8	93.5	91.7	92.2	208.7	196.0	186.2	181.7
Cigarettes	123.6	122.9	122.6	131.0	242.3	226.7	218.7	217.9
Cigars	81.4	78.6	76.1	70.5	191.7	180.9	167.4	158.7
Tobacco (chewing and smoking) and snuff	85.6	82.8	83.6	93.1	160.0	150.7	149.3	156.9
Paper and allied products	140.2	138.6	137.8	120.9	265.8	257.1	253.9	206.9
Paper and pulp	122.0	122.0	122.1	105.8	234.9	228.0	227.8	186.7
Paper goods, other	125.6	123.8	122.7	114.5	231.8	225.8	216.4	184.0
Envelopes	121.3	119.3	118.1	111.6	212.9	207.9	205.5	176.2
Paper bags	135.2	132.3	126.3	114.0	258.6	249.8	233.9	206.1
Paper boxes	129.5	126.3	126.1	114.6	245.0	235.8	234.1	192.6
Printing, publishing, and allied industries	120.1	117.6	117.0	102.5	200.3	195.2	190.5	150.7
Newspapers and periodicals	112.8	111.0	110.4	97.2	178.9	175.6	168.8	132.9
Printing, book and job	128.9	125.8	125.0	110.0	220.4	215.4	210.4	168.6
Lithographing	115.1	113.6	112.0	96.5	191.4	185.2	182.6	148.2
Bookbinding	128.0	123.2	124.0	107.9	262.8	246.5	249.9	191.4
Chemicals and allied products	170.5	167.9	164.9	168.5	303.5	298.3	290.5	284.9
Paints, varnishes, and colors	127.9	127.8	127.6	110.1	204.8	201.7	204.2	171.9
Drugs, medicines, and insecticides	193.8	190.0	188.7	173.6	331.9	316.8	313.7	266.1
Perfumes and cosmetics	121.8	118.0	121.4	121.4	212.7	195.2	191.8	185.1
Soap	100.8	104.5	103.8	98.6	169.0	173.2	171.7	165.1
Rayon and allied products	119.8	118.8	118.7	115.0	209.8	210.8	206.2	186.2
Chemicals, not elsewhere classified	169.8	167.6	168.5	157.0	294.0	289.6	288.0	261.3
Explosives and safety fuses	178.2	176.9	173.1	409.2	292.4	292.9	272.6	626.2
Compressed and liquefied gases	133.1	143.7	148.1	142.6	219.4	240.8	247.2	222.5
Ammunition, small-arms	160.9	174.1	115.6	242.8	326.2	339.3	201.4	472.0
Fireworks	290.2	272.5	254.7	279.6	778.4	698.3	623.1	698.1
Cottonseed oil	117.4	87.6	71.0	118.5	277.8	198.3	158.8	265.0
Fertilizers	115.7	118.7	111.5	110.3	277.3	297.4	275.4	249.8
Products of petroleum and coal	142.8	143.8	143.4	123.6	245.8	250.3	246.3	198.0
Petroleum refining	136.2	137.0	137.4	121.5	228.2	232.7	228.7	189.7
Coke and byproducts	118.7	119.3	119.1	100.0	215.0	220.0	218.2	162.8
Paving materials [3]	82.6	95.5	91.7	72.0	150.5	190.6	186.1	140.7
Roofing materials	157.1	156.6	151.0	119.3	303.5	298.6	292.0	216.6
Rubber products	194.0	190.1	187.5	154.4	357.3	365.0	343.2	254.2
Rubber tires and inner tubes	195.1	192.2	189.9	163.0	329.9	340.5	311.2	239.8
Rubber boots and shoes	123.9	121.9	121.3	101.8	214.8	245.8	240.2	185.5
Rubber goods, other	144.4	141.6	139.4	114.8	286.8	282.4	277.7	204.3

See footnotes at end of table.

TABLE 2.—*Indexes of production-worker employment and pay rolls in manufacturing industries* [1]—Continued

[1939 average=100]

Industry group and industry	Employment indexes				Pay-roll indexes			
	October 1946	September 1946	August 1946	October 1945	October 1946	September 1946	August 1946	October 1945
Nondurable goods—Continued								
Miscellaneous industries	178.2	174.9	173.9	138.3	346.2	334.9	326.9	243.1
Instruments (professional and scientific) and fire-control equipment	187.3	188.8	191.3	216.0	332.0	330.7	330.4	345.5
Photographic apparatus	147.5	147.8	148.3	119.5	247.4	240.9	244.6	189.3
Optical instruments and ophthalmic goods	185.4	182.0	182.1	164.0	332.8	322.1	316.5	273.4
Pianos, organs, and parts	127.0	124.0	122.9	69.1	250.5	241.1	230.8	109.7
Games, toys, and dolls	129.9	125.9	122.1	77.3	274.8	258.8	252.1	139.8
Buttons	96.4	96.3	96.3	82.1	211.0	214.1	208.6	163.5
Fire extinguishers	205.0	212.3	209.1	232.7	399.6	414.7	405.8	461.3

[1] These indexes are based on reports from 33,700 cooperating establishments covering 7,378,000 full- and part-time production workers who worked or received pay during any part of one pay period ending nearest the 15th of October 1946. Indexes for the major industry groups have been adjusted to levels indicated by final 1944 data made available by the Bureau of Employment Security of the Federal Security Agency.

[2] Revisions have been made as follows in the indexes for earlier months:

Sugar, beet.—July 1946 pay roll to 73.8.

Paving materials.—May, June, and July 1946 pay roll to 163.5, 168.3, and 171.4.

TABLE 3.—*Estimated number of employees in selected nonmanufacturing industries* [1]

Industry group and industry	Estimated number of employees (in thousands)			
	October 1946	September 1946	August 1946	October 1945
Mining: [2]				
Anthracite	68.9	68.1	67.9	64.7
Bituminous coal	334	335	337	262
Metal	74.1	73.7	72.8	63.7
Iron	27.8	27.7	28.1	23.7
Copper	21.8	21.5	21.2	18.8
Lead and zinc	15.0	14.9	13.8	13.2
Gold and silver	7.2	7.2	7.2	5.7
Miscellaneous	2.3	2.4	2.5	2.3
Telephone	577	575	575	431
Telegraph [3]	41.5	42.2	42.1	46.4
Electric light and power	249	249	249	209
Street railways and busses	252	252	252	231
Hotels (year-round)	389	385	385	371
Power laundries	(4)	(4)	(4)	(4)
Cleaning and dyeing	(4)	(4)	(4)	(4)
Class I steam railroads [5]	1,376	1,362	1,371	1,397
Water transportation [6]	104	(6)	119	163

[1] See footnote 1, table 4.

[2] Data are for production workers only.

[3] Excludes messengers, and approximately 6,000 employees of general and divisional headquarters, and of cable companies.

[4] The change in definition from "wage earner" to "production worker" in the power laundries and cleaning and dyeing industries results in the omission of driver-salesmen. This causes a significant difference in the data. New series are being prepared.

[5] Source: Interstate Commerce Commission.

[6] Based on estimates prepared by the U. S. Maritime Commission covering employment on active deep-sea American-flag steam and motor merchant vessels of 1,000 gross tons and over. Excludes employment on vessels under bareboat charter to, or owned by the Army or Navy. Beginning with October 1946, data relate to the end of the preceding month. Data for the week ending nearest September 15 are not available.

TABLE 4.—*Indexes of employment and pay rolls in selected nonmanufacturing industries* [1]

[1939 average=100]

Industry group and industry	Employment indexes				Pay-roll indexes			
	Oct. 1946	Sept. 1946	Aug. 1946	Oct. 1945	Oct. 1946	Sept. 1946	Aug. 1946	Oct. 1945
Mining:								
Anthracite	83.2	82.2	82.0	78.1	199.9	194.0	193.3	170.8
Bituminous coal	90.1	90.5	90.8	70.8	237.1	234.9	241.0	120.5
Metal	83.9	83.5	82.5	72.2	148.0	147.0	145.2	118.4
Iron	138.3	138.1	139.3	117.5	251.4	253.3	253.5	204.5
Copper	91.2	90.0	88.8	78.9	167.1	163.1	164.1	129.0
Lead and zinc	96.3	95.6	89.0	85.2	188.5	188.0	172.1	161.4
Gold and silver	28.9	29.0	29.1	23.1	43.0	42.5	43.5	29.5
Miscellaneous	59.2	60.4	63.7	57.4	99.9	98.0	103.5	88.6
Quarrying and nonmetallic	101.6	102.4	103.2	83.9	226.2	226.7	225.1	164.3
Crude petroleum production [2]	93.3	94.0	95.5	84.9	154.7	149.6	152.6	133.6
Public utilities:								
Telephone	181.6	181.0	181.1	135.6	269.2	265.0	267.6	189.0
Telegraph	110.3	112.0	111.9	123.2	174.1	177.3	178.5	177.6
Electric light and power	102.0	101.9	101.9	85.7	155.3	153.3	152.4	120.9
Street railways and busses	130.3	129.9	130.2	119.2	212.6	207.9	211.2	178.1
Wholesale trade	110.7	109.4	109.1	99.4	184.5	182.8	177.3	150.7
Retail trade	112.2	109.8	106.6	101.2	182.5	180.9	174.6	144.2
Food	103.7	103.5	103.6	104.6	174.6	173.5	177.2	149.7
General merchandise	132.1	125.4	117.4	115.9	204.7	199.0	188.1	157.7
Apparel	120.1	116.7	105.9	112.5	201.5	197.5	176.2	167.8
Furniture and housefurnishings	83.1	81.5	79.5	65.6	139.8	139.1	129.7	97.7
Automotive	96.6	95.5	94.4	75.7	166.0	164.8	160.1	117.3
Lumber and building materials	113.8	113.8	112.6	99.0	192.3	191.4	186.1	150.9
Hotels (year-round) [3]	120.5	119.5	119.3	115.0	214.3	209.5	208.9	184.6
Power laundries	110.1	109.9	111.6	107.4	189.8	188.7	188.4	169.1
Cleaning and dyeing	126.1	125.6	124.5	124.7	225.7	225.6	216.9	207.6
Class I steam railroads [4]	139.3	137.9	138.8	141.4	([5])	([5])	([5])	([5])
Water transportation [6]	199.2	([5])	225.9	311.0	422.6	([5])	478.8	566.8

[1] These figures are based on reports from cooperating establishments covering both full- and part-time employees who worked or received pay during any part of one pay period ending nearest the 15th of October 1946, as follows:
Mining: 2,800 establishments—347,000 production workers.
Public utilities: 2,800 establishments—753,000 employees.
Wholesale trade: 12,400 establishments—333,000 employees.
Retail trade: 41,000 establishments—1,088,000 employees.
Hotels (year-round): 1,300 establishments—136,000 employees.
Power laundries and cleaning and dyeing: 1,600 establishments—75,000 production workers.

[2] Does not include well drilling or rig building.

[3] Cash payments only; additional value of board, room, and tips, not included.

[4] Source: Interstate Commerce Commission.

[5] Not available.

[6] Based on estimates prepared by the U. S. Maritime Commission covering employment on active deep-sea American-flag steam and motor merchant vessels of 1,000 gross tons and over. Excludes employment on vessels under bareboat charter to, or owned by the Army or Navy. Beginning with October 1946, data relate to the end of the preceding month. Data for the week ending nearest September 15 are not available.

Labor Turn-Over in Manufacturing, Mining, and Public Utilities, October 1946

THE October 1946 factory quit rate of 46 per 1,000 employees, while still 5 times greater than October 1939, was the lowest October in 5 years. The hiring rate of 67 per 1,000, like the quit rate, was considerably above prewar levels. Relatively high quit and accession rates are characteristic of periods of full employment.

Although the hiring rate in October was lower than in September, increases were reported in 5 major groups. The highest accession rate, 360 per 1,000 persons, was reported by the meat-products industry of the food group, reflecting the expansion in activity after the removal of price controls.

The hiring rate for women remained higher than for men for the fifth month in the last half year. Women were hired at a greater rate in all the soft goods groups and in all heavy industry groups except transportation equipment and lumber. Total separation rates also continued higher for women, reflecting higher quits but somewhat lower lay-offs than for men.

Material shortages and labor unrest were largely responsible for increased lay-off rates in 10 of the 19 major industrial groups. The rate of 34 per 1,000 reported in the automobile group was largely a result of labor disputes in supplier plants.

Lumber and furniture continued to have the highest quit rates of any of the major groups—78 and 69 per 1,000, respectively. Next ranked apparel, food, and automobiles, with quit rates above 50 per 1,000.

TABLE 1.—*Monthly labor turn-over rates (per 100 employees) in manufacturing industries* [1]

Class of turn-over and year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Total separation:												
1946	6.8	6.3	6.6	6.3	6.3	5.7	5.8	6.6	6.9	[2] 6.1	------	------
1945	6.2	6.0	6.8	6.6	7.0	7.9	7.7	17.9	12.0	8.6	7.1	5.9
1943	7.1	7.1	7.7	7.5	6.7	7.1	7.6	8.3	8.1	7.0	6.4	6.6
1939	3.2	2.6	3.1	3.5	3.5	3.3	3.3	3.0	2.8	2.9	3.0	3.5
Quit:												
1946	4.3	3.9	4.2	4.3	4.2	4.0	4.6	5.3	5.3	[2] 4.6	------	------
1945	4.6	4.3	5.0	4.8	4.8	5.1	5.2	6.2	6.7	5.6	4.7	4.0
1943	4.5	4.7	5.4	5.4	4.8	5.2	5.6	6.3	6.3	5.2	4.5	4.4
1939	.9	.6	.8	.8	.7	.7	.7	.8	1.1	.9	.8	.7
Discharge:												
1946	.5	.5	.4	.4	.4	.3	.4	.4	.4	[2] .4	------	------
1945	.7	.7	.7	.6	.6	.7	.6	.7	.6	.5	.5	.4
1943	.5	.5	.6	.5	.6	.6	.7	.7	.6	.6	.6	.6
1939	.1	.1	.1	.1	.1	.1	.1	.1	.1	.2	.2	.1
Lay-off: [3]												
1946	1.8	1.7	1.8	1.4	1.5	1.2	.6	.7	1.0	[2] 1.0	------	------
1945	.6	.7	.7	.8	1.2	1.7	1.5	10.7	4.5	2.3	1.7	1.3
1943	.7	.5	.5	.6	.5	.5	.5	.5	.5	.5	.7	1.0
1939	2.2	1.9	2.2	2.6	2.7	2.5	2.5	2.1	1.6	1.8	2.0	2.7
Military and miscellaneous: [4]												
1946	.2	.2	.2	.2	.2	.2	.2	.2	.2	[2] .1	------	------
1945	.3	.3	.4	.4	.4	.4	.4	.3	.2	.2	.2	.2
1943	1.4	1.4	1.2	1.0	.8	.8	.8	.8	.7	.7	.6	.6
Accession:												
1946	8.5	6.8	7.1	6.7	6.1	6.7	7.4	7.0	7.1	[2] 6.7	------	------
1945	7.0	5.0	4.9	4.7	5.0	5.9	5.8	5.9	7.4	8.6	8.7	6.9
1943	8.3	7.9	8.3	7.4	7.2	8.4	7.8	7.6	7.7	7.2	6.6	5.2
1939	4.1	3.1	3.3	2.9	3.3	3.9	4.2	5.1	6.2	5.9	4.1	2.8

[1] Month-to-month employment changes as indicated by labor turn-over rates are not precisely comparable to those shown by the Bureau's employment and pay-roll reports, as the former are based on data for the entire month while the latter refer, for the most part, to a one-week period, ending nearest the middle of the month. In addition, labor turn-over data, beginning in January 1943, refer to all employees, whereas the employment and pay-roll reports relate only to production workers. The turn-over sample is not so extensive as that of the employment and pay-roll survey—proportionately fewer small plants are included; printing and publishing, and certain seasonal industries, such as canning and preserving, are not covered. For the month of September rates are based on reports from 6,900 establishments, employing 4,432,000 workers.

[2] Preliminary.

[3] Including temporary (of more that 7 days' duration), indeterminate, and permanent lay-offs.

[4] Miscellaneous separations comprise not more than 0.1 in these figures. In 1939 these data were included with quits.

TABLE 2.—*Monthly labor turn-over rates (per 100 employees) in selected groups and industries,* [1] *October 1946* [2]

Industry group and industry	Total separation		Quit		Discharge		Lay-off		Military and miscellaneous		Total accession	
	Oct.	Sept.	Oct.	Sept.	Oct.	Sept.	Oct.	Sept.	Oct.	Sept.	Oct.	Sept.
Manufacturing												
Durable goods	6.5	6.9	4.6	5.4	0.5	0.5	1.2	0.8	0.2	0.2	6.8	7.4
Nondurable goods	5.9	6.9	4.7	5.3	.4	.3	.7	1.1	.1	.2	6.7	6.8
Iron and steel and their products	5.5	5.7	4.2	4.6	.4	.3	.7	.5	.2	.3	5.7	5.8
Blast furnaces, steel works, and rolling mills	3.8	4.2	3.2	3.5	.2	.2	.2	.2	.2	.3	4.0	3.9
Gray-iron castings	10.0	8.8	7.9	7.4	1.0	.8	.7	.2	.4	.4	10.3	9.9
Malleable-iron castings	7.6	7.3	6.7	6.5	.4	.4	.2	.2	.3	.2	8.6	8.9
Steel castings	5.2	5.4	3.7	4.2	.4	.4	.9	.5	.2	.3	5.4	6.0
Cast-iron pipe and fittings	6.9	7.2	5.7	6.5	.4	.1	.5	.1	.3	.5	7.2	7.0
Tin cans and other tinware	9.9	13.7	6.6	10.5	1.3	1.2	1.9	1.9	.1	.1	7.3	9.7
Wire products	5.0	4.7	3.6	3.6	.3	.2	.9	.7	.2	.2	5.2	5.1
Cutlery and edge tools	6.2	6.2	4.7	4.6	1.3	1.3	.1	.1	.1	.2	10.6	8.8
Tools (except edge tools, machine tools, files, and saws)	5.2	6.7	4.2	6.0	.7	.4	.1	(3)	.2	.3	6.9	7.3
Hardware	7.9	7.6	6.0	6.5	.5	.6	1.2	.3	.2	.2	8.1	8.3

See footnotes at end of table.

TABLE 2.—*Monthly labor turn-over rates (per 100 employees) in selected groups and industries,*[1] *October 1946* [2]—Continued

Industry group and industry	Total separation		Quit		Discharge		Lay-off		Military and miscellaneous		Total accession	
	Oct.	Sept.	Oct.	Sept.	Oct.	Sept.	Oct.	Sept.	Oct.	Sept.	Oct.	Sept.
Manufacturing—Continued												
Iron and steel and their products—Con.												
Stoves, oil burners, and heating equipment	7.4	8.8	5.7	7.5	0.8	0.8	0.7	0.4	0.2	0.1	10.0	10.8
Steam and hot-water heating apparatus and steam fittings	6.0	6.3	4.9	5.3	.4	.5	.5	.4	.2	.1	7.7	7.3
Stamped and enameled ware and galvanizing	9.3	9.1	6.4	7.7	.6	.6	2.0	.5	.3	.3	8.3	9.1
Fabricated structural metal products	6.7	6.9	4.9	5.4	.6	.4	1.0	.8	.2	.3	8.0	7.8
Bolts, nuts, washers, and rivets	4.6	4.8	3.8	3.8	.2	.3	.2	.5	.4	.2	4.6	5.2
Forgings, iron and steel	4.4	4.8	3.5	3.7	.2	.2	.5	.7	.2	.2	4.8	5.6
Electrical machinery	5.3	5.8	4.0	4.7	.4	.4	.7	.5	.2	.2	6.7	7.2
Electrical equipment for industrial use	3.6	3.8	2.5	3.1	.2	.2	.6	.3	.3	.2	4.5	4.9
Radios, radio equipment, and phonographs	6.2	6.9	4.9	5.5	.8	.8	.4	.5	.1	.1	8.3	8.8
Communication equipment except radios	3.3	4.9	2.8	3.7	.2	.2	.1	.6	.2	.4	5.0	6.6
Machinery, except electrical	4.4	4.9	3.4	4.0	.5	.4	.4	.3	.1	.2	5.3	5.8
Engines and turbines	4.2	4.7	2.9	3.5	.6	.6	.5	.4	.2	.2	6.0	6.8
Agricultural machinery and tractors	(4)	4.8	(4)	4.1	(4)	.3	(4)	.2	(4)	.2	(4)	5.1
Machine tools	3.1	4.0	2.3	3.2	.2	.2	.4	.4	.2	.2	3.1	3.6
Machine-tool accessories	4.3	5.0	3.2	4.0	.5	.5	.5	.4	.1	.1	4.9	5.6
Metalworking machinery and equipment, not elsewhere classified	4.4	4.9	3.8	4.2	.4	.4	.1	.2	.1	.1	5.1	5.1
General industrial machinery, except pumps	4.6	5.0	3.7	4.0	.5	.5	.3	.4	.1	.1	5.1	5.4
Pumps and pumping equipment	4.3	5.5	3.2	4.5	.8	.7	.2	.2	.1	.1	5.0	5.7
Transportation equipment except automobiles	8.5	10.5	3.6	4.4	.5	.5	4.3	5.4	.1	.2	7.6	8.1
Aircraft	6.8	7.1	3.9	4.7	.4	.4	2.4	1.8	.1	.2	7.4	8.0
Aircraft parts, including engines	3.9	7.5	2.6	4.0	.4	.4	.9	3.0	(3)	.1	6.2	6.5
Shipbuilding and repairs	13.9	16.7	3.9	4.7	.7	.6	9.2	11.2	.1	.2	8.8	8.9
Automobiles	9.4	7.5	5.1	6.1	.7	.6	3.4	.6	.2	.2	7.1	9.4
Motor vehicles, bodies, and trailers	9.6	7.8	5.5	6.5	.7	.6	3.3	.5	.1	.2	6.6	9.5
Motor-vehicle parts and accessories	8.7	6.8	4.3	5.0	.7	.6	3.4	.9	.3	.3	8.2	9.1
Nonferrous metals and their products	5.8	6.2	4.6	5.1	.6	.5	.5	.4	.1	.2	7.3	7.4
Primary smelting and refining, except aluminum and magnesium	2.8	4.6	2.4	3.7	.3	.5	(3)	.2	.1	.2	4.4	5.2
Rolling and drawing of copper and copper alloys	4.2	4.2	3.9	3.9	.2	.2	(3)	(3)	.1	.1	4.8	4.3
Lighting equipment	7.9	8.3	6.1	6.9	.3	.5	1.3	.8	.2	.1	7.2	9.7
Nonferrous-metal foundries except aluminum and magnesium	5.8	5.7	4.8	4.7	.5	.5	.3	.3	.2	.2	8.0	6.4
Lumber and timber basic products	8.8	10.1	7.8	9.0	.4	.4	.5	.5	.1	.2	10.0	9.8
Sawmills	8.6	10.1	7.7	9.1	.4	.4	.4	.3	.1	.3	10.0	9.7
Planing and plywood mills	6.2	7.0	5.0	5.9	.4	.3	.7	.7	.1	.1	6.7	6.9
Furniture and finished lumber products	8.3	9.9	6.9	8.6	.7	.7	.6	.4	.1	.2	9.2	10.5
Furniture, including mattresses and bedsprings	8.1	10.0	6.7	8.6	.7	.8	.6	.4	.1	.2	9.3	10.5
Stone, clay, and glass products	5.1	6.0	4.0	5.1	.4	.4	.5	.3	.2	.2	5.8	6.4
Glass and glass products	5.1	5.9	3.5	4.7	.5	.4	.8	.5	.3	.3	5.6	6.0
Cement	6.0	6.7	5.1	5.6	.6	.5	.2	.2	.1	.4	6.3	6.7
Brick, tile, and terra cotta	6.0	7.2	5.1	6.4	.3	.6	.5	.1	.1	.1	6.1	8.2
Pottery and related products	4.5	5.6	4.0	5.0	.3	.2	.1	.3	.1	.1	6.2	6.1

See footnotes at end of table.

TABLE 2.—*Monthly labor turn-over rates (per 100 employees) in selected groups and industries,*[1] *October 1946* [2]—Continued

Industry group and industry	Total separation		Quit		Discharge		Lay-off		Military and miscellaneous		Total accession	
	Oct.	Sept.	Oct.	Sept.	Oct.	Sept.	Oct.	Sept.	Oct.	Sept.	Oct.	Sept
Manufacturing—Continued												
Textile-mill products	5.3	6.1	4.6	5.4	0.4	0.4	0.2	0.2	0.1	0.1	6.1	6.6
Cotton	5.9	7.2	5.3	6.4	.4	.4	.1	.2	.1	.2	6.9	7.7
Silk and rayon goods	5.1	5.7	4.4	5.1	.3	.3	.3	.2	.1	.1	5.9	6.2
Woolen and worsted, except dyeing and finishing	4.7	5.0	3.7	4.3	.4	.4	.4	.2	.2	.1	4.9	5.0
Hosiery, full-fashioned	3.7	4.1	3.2	3.7	.3	.3	.1	.1	.1	(3)	4.4	4.5
Hosiery, seamless	5.2	5.8	5.0	5.4	.2	.2	(3)	.1	(3)	.1	6.3	6.7
Knitted underwear	5.7	5.7	5.3	5.3	.2	.3	.1	.1	.1	(3)	6.2	6.1
Dyeing and finishing textiles, including woolen and worsted	3.8	4.9	2.6	3.6	.6	.6	.4	.3	.2	.4	5.2	4.5
Apparel and other finished textile products	6.3	6.5	5.8	6.0	.2	.2	.3	.2	(3)	.1	7.2	7.1
Men's and boys' suits, coats, and overcoats	3.8	4.2	3.5	3.8	.2	.2	.1	.1	(3)	.1	5.1	5.2
Men's and boys' furnishings, work clothing, and allied garments	7.7	6.4	7.1	6.1	.2	.2	.4	.1	(3)	(3)	7.3	7.3
Leather and leather products	5.3	6.0	4.7	5.4	.2	.2	.3	.3	.1	.1	5.1	5.3
Leather	4.3	4.8	3.5	3.6	.2	.1	.5	1.0	.1	.1	4.0	3.9
Boots and shoes	5.4	6.2	4.9	5.7	.2	.2	.2	.2	.1	.1	5.3	5.6
Food and kindred products	8.3	10.5	5.5	6.1	.5	.4	2.2	3.9	.1	.1	9.6	9.4
Meat products	7.0	40.4	3.0	3.6	.3	.3	3.3	36.2	.4	.3	36.0	6.1
Grain-mill products	8.6	7.1	6.6	6.1	.5	.3	1.3	.6	.2	.1	7.3	11.2
Tobacco manufactures	5.7	6.2	4.8	5.3	.5	.4	.2	.4	.2	.1	7.9	7.2
Paper and allied products	5.7	7.3	4.8	6.4	.5	.5	.2	.2	.2	.2	6.4	6.9
Paper and pulp	4.9	6.2	4.0	5.4	.5	.4	.2	.2	.2	.2	5.2	5.5
Paper boxes	8.3	9.9	7.3	8.7	.6	.7	.1	.2	.3	.3	10.1	10.5
Chemicals and allied products	3.4	4.0	2.4	3.2	.3	.3	.5	.3	.2	.2	4.1	3.8
Paints, varnishes, and colors	3.2	3.8	2.3	3.1	.3	.2	.5	.3	.1	.2	2.7	3.4
Rayon and allied products	2.7	3.4	1.9	2.6	.2	.2	.4	.3	.2	.3	2.5	2.8
Industrial chemicals, except explosives	3.3	4.5	2.6	3.6	.3	.4	.2	.3	.2	.2	5.4	3.9
Products of petroleum and coal	1.9	2.3	1.2	1.7	.2	.1	.3	.3	.2	.2	1.9	2.3
Petroleum refining	1.7	2.2	1.1	1.6	.1	.1	.3	.3	.2	.2	1.8	2.2
Rubber products	4.9	5.3	4.2	4.6	.3	.4	.2	.1	.2	.2	6.0	6.2
Rubber tires and inner tubes	3.6	3.8	3.1	3.3	.2	.2	.1	.1	.2	.2	4.4	4.6
Rubber footwear and related products	6.7	7.3	6.1	6.7	.2	.3	.3	.1	.1	.2	7.0	7.8
Miscellaneous rubber industries	6.8	7.3	5.7	6.3	.6	.6	.4	.2	.1	.2	8.6	8.8
Miscellaneous industries	5.2	5.7	4.0	4.3	.5	.3	.5	.9	.2	.2	5.6	5.3
Nonmanufacturing												
Metal mining [4]	5.2	6.5	4.4	5.8	.3	.3	.3	.1	.2	.3	6.5	6.2
Iron ore	2.7	4.4	1.8	3.7	.1	.1	.5	.2	.3	.4	3 4	3.1
Copper ore	6.3	7.7	5.6	6.8	.4	.6	.2	.1	.1	.2	8.6	8.8
Lead and zinc ore	5.9	6.7	5.2	6.2	.4	.3	.2	.1	.1	.1	6.9	6.6
Coal mining: [4]												
Anthracite	2.0	1.7	1.4	1.3	.1	.1	.4	.1	.1	.2	2.2	2.0
Bituminous-coal	3.6	4.0	3.1	3.4	.1	.2	.2	.2	.2	.2	3.5	3.7
Public utilities:												
Telephone	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)
Telegraph	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)

[1] Since January 1943 manufacturing firms reporting labor turn-over have been assigned industry codes on the basis of current products. Most plants in the employment and pay-roll sample comprising those which were in operation in 1939 are classified according to their major activity at that time, regardless of any subsequent change in major products.

[2] Preliminary.

[3] Less than 0.05.

[4] Not available.

[5] Rates for mining industries are based on reports from 500 establishments employing 235,000 persons.

TABLE 3.—*Monthly labor turn-over rates for men and women in all manufacturing and selected groups,*[1] *October 1946* [2]

Industry group	Men's rates (per 100 men)						Women's rates (per 100 women)					
	Total separation		Quit		Accession		Total separation		Quit		Accession	
	Oct.	Sept.	Oct.	Sept.	Oct.	Sept.	Oct.	Sept.	Oct.	Sept.	Oct.	Sept.
All manufacturing	5.7	6.5	4.2	4.8	6.3	6.6	7.3	7.6	5.9	6.5	7.7	8.3
Durable goods	6.2	6.6	4.6	5.2	6.6	7.1	6.5	7.3	5.0	6.0	7.7	8.4
Nondurable goods	4.7	6.2	3.6	4.2	5.9	5.7	7.6	7.8	6.2	6.7	7.8	8.3
Iron and steel and their products	5.6	5.8	4.3	4.6	6.0	5.9	6.8	7.2	4.9	5.8	7.3	7.3
Electrical machinery	4.4	4.6	3.0	3.6	5.4	5.6	6.8	7.7	5.7	6.4	8.9	9.8
Machinery, except electrical	4.2	4.7	3.2	3.7	5.0	5.6	5.0	5.8	3.9	4.9	6.1	6.2
Transportation equipment, except automobiles	8.3	9.7	3.6	4.5	7.4	8.2	6.5	7.4	3.8	4.4	6.4	6.7
Automobiles	7.5	6.8	5.0	5.5	6.7	8.6	7.6	6.9	4.1	4.5	8.6	8.9
Nonferrous metals and their products	5.7	5.8	4.5	4.7	6.7	6.8	6.1	7.4	5.1	6.5	7.5	9.4
Lumber and timber basic products	9.0	10.2	8.0	9.2	10.3	9.8	6.1	8.1	5.5	7.1	6.0	8.7
Furniture and finished lumber products	8.4	9.9	6.9	8.6	9.1	10.4	8.4	9.9	7.1	8.6	9.6	11.3
Stone, clay, and glass products	5.0	5.9	3.9	4.9	5.7	6.2	5.6	6.5	4.6	5.7	6.5	7.4
Textile-mill products	4.9	5.8	4.1	5.1	5.9	6.2	5.7	6.4	5.1	5.8	6.4	7.1
Apparel and other finished textile products	3.7	4.1	3.5	3.7	4.4	5.1	6.8	6.7	6.2	6.3	7.4	7.5
Leather and leather products	4.3	5.1	3.7	4.5	4.5	4.3	6.5	7.3	5.9	6.8	5.9	6.9
Food and kindred products	6.3	9.5	4.1	4.7	8.5	7.6	14.5	13.0	9.8	9.6	13.0	14.0
Tobacco manufactures	4.7	5.8	3.6	4.4	6.8	5.0	6.2	6.5	5.4	5.8	8.6	8.5
Paper and allied products	5.1	6.5	4.1	5.6	5.9	6.3	7.7	9.8	7.1	9.0	8.1	9.0
Chemicals and allied products	2.9	3.7	2.2	3.0	4.0	3.5	4.8	5.5	3.4	4.5	4.5	4.9
Products of petroleum and coal	1.7	2.2	1.1	1.6	1.8	2.2	4.1	5.4	3.1	4.2	4.5	5.2
Rubber products	4.5	4.8	3.8	4.1	5.6	5.5	6.1	6.7	5.4	6.0	7.0	8.2
Miscellaneous industries	4.7	5.1	3.5	3.7	5.1	4.5	6.1	6.8	4.8	5.4	6.7	6.9

[1] These figures are based on a slightly smaller sample than that for all employees, inasmuch as some firms do not report separate data for women. Rates for September are based on 6,850 reports covering 4,192,000 employees.

[2] Preliminary figures.

Trends of Earnings and Hours

Summary of Earnings and Hours Data for October 1946

WEEKLY earnings in manufacturing industries in November 1946 continued to average about $45.50 for the third successive month, according to preliminary estimates. This average is about $5 per week more than in November 1945, although the average workweek is about 1 hour shorter. The figures below are preliminary averages for November.

	Weekly earnings	*Weekly hours*	*Hourly earnings*
All manufacturing	$45.74	40.2	113.9
Durable goods	48.53	40.1	121.0
Nondurable goods	42.86	40.2	106.5

Final figures for October 1946 indicate that both average hourly and average weekly earnings were slightly higher than in September in both the durable and nondurable goods groups. The transportation equipment and tobacco groups showed the greatest increases in weekly earnings over the month—$1.63 and $1.49, respectively. A longer workweek in the shipbuilding industry, following the settlement of the maritime strike, was a large factor in the gain in weekly earnings in the transportation equipment group. A bumper tobacco crop, combined with increased demand for tobacco, raised the earnings in the tobacco group to $36.82, the highest on record.

In the year ending October 1946, weekly earnings of production workers in manufacturing increased 11½ percent or almost $5. While this is the average for all industries, the spread around this average was considerable. For example, 4 industries, employing 1 percent of all factory workers, reported decreases in weekly earnings between October 1945 and October 1946; while 51 industries, with 21 percent of the employment, had increases in weekly earnings of less than 10 percent. At the other extreme, increases in weekly earnings of 20 percent or more were reported by 13 industries with 11 percent of all workers. It must be remembered that these figures are industry averages; weekly earnings in individual plants or for individual workers may not agree with these.

Earnings and hours in manufacturing and nonmanufacturing industries

MANUFACTURING

Industry group and industry	Average weekly earnings [1]			Average weekly hours [1]			Average hourly earnings [1]		
	Oct. 1946	Sept. 1946	Aug. 1946	Oct. 1946	Sept. 1946	Aug. 1946	Oct. 1946	Sept. 1946	Aug. 1946
							Cents	*Cents*	*Cents*
All manufacturing	$45.68	$45.41	$44.99	40.4	40.3	40.5	113.0	112.7	111.2
Durable goods	48.83	48.40	48.02	40.6	40.3	40.5	120.2	120.1	118.6
Nondurable goods	42.42	42.34	41.89	40.2	40.3	40.4	105.5	105.0	103.6
Durable goods									
Iron and steel and their products	49.85	49.31	48.78	40.3	39.7	39.9	123.8	124.1	122.2
Blast furnaces, steel works, and rolling mills	50.43	50.28	49.84	38.6	38.0	38.2	130.0	132.5	130.5
Gray-iron and semisteel castings	53.36	52.58	50.90	42.8	42.3	41.8	124.8	124.3	121.8
Malleable-iron castings	52.27	51.50	51.28	40.9	40.7	40.7	127.7	126.6	126.0
Steel castings	50.25	49.28	49.32	38.8	38.3	38.9	129.1	128.6	126.9
Cast-iron pipe and fittings	45.23	43.67	42.30	42.3	40.7	40.8	106.8	107.1	103.6
Tin cans and other tinware	44.68	46.22	45.97	40.8	41.9	42.6	110.0	111.1	108.6
Wirework	49.09	49.89	49.36	40.9	41.3	41.5	119.4	120.7	118.8
Cutlery and edge tools	47.45	45.83	44.98	43.7	43.0	43.1	108.5	106.5	104.3
Tools (except edge tools, machine tools, files, and saws)	49.01	47.59	46.91	42.9	42.5	42.4	114.1	112.1	110.6
Hardware	46.21	45.26	44.88	41.9	41.4	41.7	110.3	109.5	106.9
Plumbers' supplies	48.88	45.63	46.00	41.2	39.4	40.2	117.9	115.7	113.8
Stoves, oil burners, and heating equipment not elsewhere classified	48.89	47.36	47.16	41.0	40.2	40.6	119.2	117.8	116.1
Steam and hot-water heating apparatus and steam fittings	51.43	49.72	47.81	41.0	40.8	40.3	125.4	121.9	118.6
Stamped and enameled ware and galvanizing	47.20	45.53	45.53	41.2	39.9	40.5	115.1	114.6	112.5
Fabricated structural and ornamental metalwork	49.47	48.71	48.69	41.0	40.5	40.7	121.5	120.4	119.6
Metal doors, sash, frames, molding, and trim	51.68	52.13	50.23	41.6	41.1	41.2	125.0	126.9	121.8
Bolts, nuts, washers, and rivets	46.57	45.60	46.41	39.7	38.9	40.4	117.5	116.5	114.3
Forgings, iron and steel	55.16	53.52	53.94	40.2	39.5	40.0	138.0	136.3	134.9
Screw-machine products and wood screws	52.13	50.57	50.65	43.3	42.3	42.8	120.4	119.6	118.4
Steel barrels, kegs, and drums	48.46	45.46	47.06	42.1	39.8	41.7	115.0	114.3	113.0
Firearms	51.10	53.30	49.86	40.7	42.3	40.4	125.6	125.9	123.5
Electrical machinery	48.50	48.41	47.49	40.9	40.9	40.6	118.6	118.5	116.9
Electrical equipment	48.78	49.01	48.28	40.4	40.5	40.2	121.7	121.6	120.2
Radios and phonographs	43.67	43.64	42.34	40.8	41.0	40.5	107.0	106.5	104.4
Communication equipment	50.98	50.24	49.71	42.6	42.1	42.2	119.8	119.3	118.1
Machinery, except electrical	52.47	51.74	50.99	41.5	41.1	40.9	126.5	126.0	124.6
Machinery and machine-shop products	51.91	51.05	51.15	41.6	41.2	41.6	124.5	123.8	122.8
Engines and turbines	55.48	55.26	51.95	41.1	40.5	39.0	136.7	136.5	132.8
Tractors	52.28	51.21	51.01	40.2	39.3	39.1	130.2	130.2	130.3
Agricultural machinery, excluding tractors	51.00	51.09	49.20	40.4	40.4	39.9	126.7	126.9	123.8
Machine tools	55.64	54.31	54.07	42.5	42.0	42.0	131.0	129.9	129.1
Machine-tool accessories	56.47	56.28	54.49	41.7	41.5	40.8	136.2	136.0	134.0
Textile machinery	50.26	49.43	48.28	42.9	42.6	41.9	117.3	116.1	115.2
Typewriters	47.89	47.19	46.01	41.9	41.7	41.1	114.3	113.2	111.9
Cash registers, adding and calculating machines	57.53	58.20	52.84	42.3	42.6	39.9	136.4	136.9	133.8
Washing machines, wringers and driers, domestic	49.60	47.87	46.30	42.7	41.7	41.2	116.1	114.7	112.4
Sewing machines, domestic and industrial	52.91	51.15	52.27	41.1	40.4	42.1	128.5	127.4	124.8
Refrigerators and refrigeration equipment	49.71	49.54	48.46	40.2	40.1	39.7	123.7	123.5	122.2
Transportation equipment, except automobiles	54.22	52.59	53.91	39.9	38.8	39.7	135.8	135.7	135.9
Locomotives	60.94	57.92	57.27	41.7	39.6	39.8	146.1	146.2	143.9
Cars, electric- and steam-railroad	51.26	49.08	50.23	41.6	39.7	41.1	123.7	123.4	122.3
Aircraft and parts, excluding aircraft engines	53.52	53.75	53.85	40.5	40.6	40.7	132.1	132.5	132.3
Aircraft engines	57.46	56.93	56.08	42.1	41.9	41.4	136.4	135.7	135.4
Shipbuilding and boatbuilding	54.01	50.93	54.41	37.7	35.7	38.0	143.2	142.8	143.1
Motorcycles, bicycles, and parts	53.24	50.95	49.30	42.6	41.2	40.6	125.0	123.8	121.5
Automobiles	52.80	53.55	53.80	38.3	38.6	39.2	137.8	138.6	137.3

See footnotes at end of table.

Earnings and hours in manufacturing and nonmanufacturing industries—Continued

MANUFACTURING—Continued

Industry group and industry	Average weekly earnings [1]			Average weekly hours [1]			Average hourly earnings [1]		
	Oct. 1946	Sept. 1946	Aug. 1946	Oct. 1946	Sept. 1946	Aug. 1946	Oct. 1946	Sept. 1946	Aug. 1946
Durable goods—Continued									
							Cents	*Cents*	*Cents*
Nonferrous metals and their products	$48.97	$48.61	$48.00	40.9	40.8	40.8	119.6	119.2	117.7
Smelting and refining, primary, of nonferrous metals	47.81	48.65	47.85	40.1	40.3	40.2	119.7	120.8	118.9
Alloying and rolling and drawing of nonferrous metals, except aluminum	51.70	51.63	51.59	40.7	40.8	40.8	127.1	126.5	126.6
Clocks and watches	45.17	43.68	42.75	41.8	41.0	41.1	108.1	106.4	103.9
Jewelry (precious metals) and jewelers' findings	49.95	48.93	46.72	43.7	43.5	42.7	114.9	112.4	108.8
Silverware and plated ware	56.42	55.48	52.67	46.1	45.9	45.2	122.2	121.0	116.6
Lighting equipment	45.85	46.10	45.40	38.9	39.1	39.0	117.9	117.8	116.5
Aluminum manufactures	46.95	47.32	46.73	39.3	39.5	39.7	119.5	119.7	117.6
Lumber and timber basic products	39.19	38.73	38.78	41.9	41.4	41.8	93.6	93.5	92.8
Sawmills and logging camps	37.87	37.69	37.75	41.5	41.2	41.4	91.3	91.5	91.1
Planing and plywood mills	43.25	42.04	42.17	43.0	42.2	42.9	100.5	99.5	98.2
Furniture and finished lumber products	41.86	40.82	40.09	42.2	41.8	41.9	99.2	97.7	95.7
Furniture	42.59	41.58	40.85	41.8	41.6	41.7	101.9	100.1	98.2
Caskets and other morticians' goods	42.57	42.59	40.74	42.3	42.6	42.0	100.4	100.3	96.6
Wood preserving	38.65	37.99	36.84	41.9	41.3	41.2	92.2	92.1	89.4
Stone, clay, and glass products	44.46	44.08	43.23	40.5	40.5	40.7	109.7	108.8	106.3
Glass and glassware	45.71	45.29	43.14	39.4	39.5	39.4	116.1	114.7	109.5
Glass products made from purchased glass	40.43	38.90	39.60	40.8	40.6	42.1	96.4	93.5	91.7
Cement	46.02	47.03	45.63	42.4	42.9	42.3	108.5	109.7	107.9
Brick, tile, and terra cotta	42.16	41.47	40.67	40.8	40.5	40.0	102.6	102.1	101.2
Pottery and related products	41.80	41.42	41.34	38.4	38.1	38.5	110.1	108.9	107.9
Gypsum	50.75	50.46	50.45	47.0	46.6	47.2	107.9	108.4	106.9
Lime	45.28	45.96	45.27	46.5	46.9	46.6	97.6	98.1	96.7
Marble, granite, slate, and other products	44.18	42.64	43.68	42.9	41.6	43.0	102.6	102.2	101.0
Abrasives	45.11	45.35	46.63	38.1	38.0	39.9	118.5	119.4	116.8
Asbestos products	49.81	49.19	49.56	42.0	42.9	43.5	118.9	114.5	113.9
Nondurable goods									
Textile-mill products and other fiber manufactures	38.09	37.54	37.00	40.2	40.0	40.1	94.7	94.0	92.4
Cotton manufactures, except smallwares	35.57	35.35	34.81	39.9	39.8	39.8	89.2	88.8	87.5
Cotton smallwares	39.00	38.33	38.67	40.6	40.5	41.0	96.1	94.7	94.2
Silk and rayon goods	38.67	37.20	37.42	41.6	40.4	41.3	93.1	92.2	90.6
Woolen and worsted manufactures, except dyeing and finishing	42.40	42.44	41.88	40.9	41.1	40.9	103.7	103.4	102.4
Hosiery	37.65	36.65	35.96	38.3	37.7	38.0	98.2	97.4	94.6
Knitted cloth	39.73	39.67	39.20	41.4	41.8	42.2	96.0	94.9	92.9
Knitted outerwear and knitted gloves	36.69	35.84	34.35	39.4	38.6	38.6	92.2	91.8	88.1
Knitted underwear	33.05	32.70	31.79	38.4	38.1	38.1	85.5	85.2	83.0
Dyeing and finishing textiles, including woolen and worsted	42.69	40.72	40.92	42.3	41.4	42.1	100.8	98.3	97.1
Carpets and rugs, wool	46.33	43.72	42.10	41.7	41.3	40.4	111.1	106.1	104.3
Hats, fur-felt	52.92	53.25	52.93	40.6	40.9	39.7	130.2	130.0	135.2
Jute goods, except felts	39.52	39.47	38.23	43.7	44.0	43.4	91.8	91.2	89.7
Cordage and twine	37.63	37.86	37.17	40.9	41.4	41.3	92.2	91.4	90.1
Apparel and other finished textile products	36.67	37.23	36.48	36.8	36.9	37.0	99.7	101.0	98.6
Men's clothing, not elsewhere classified	39.19	39.14	38.11	37.7	37.7	37.5	102.4	102.7	100.9
Shirts, collars, and nightwear	30.32	29.62	28.76	37.5	37.0	36.8	80.6	79.9	78.2
Underwear and neckwear, men's	33.46	33.13	31.53	37.7	37.9	37.5	88.5	87.5	84.0
Work shirts	24.28	23.55	23.48	35.1	34.5	35.7	69.4	68.2	65.8
Women's clothing, not elsewhere classified	46.25	47.82	47.45	35.5	35.8	36.4	126.6	130.0	126.3
Corsets and allied garments	36.44	35.09	34.58	38.7	38.0	38.3	95.3	92.9	90.7
Millinery	43.15	45.40	43.71	32.3	33.2	33.0	110.9	112.2	108.9
Handkerchiefs	29.44	28.36	28.61	36.0	35.0	36.4	81.9	81.2	78.9
Curtains, draperies, and bedspreads	29.73	28.31	27.58	36.5	35.8	35.5	81.6	79.9	78.4
Housefurnishings other than curtains, etc.	33.06	36.36	35.38	36.4	38.9	38.7	90.3	93.6	91.1
Textile bags	33.68	33.03	31.53	40.0	39.7	38.7	84.1	83.1	81.5
Leather and leather products	37.07	37.49	36.74	37.5	38.2	37.8	98.7	98.2	97.2
Leather	44.78	44.60	45.08	39.7	39.5	40.3	112.9	112.9	112.0
Boot and shoe cut stock and findings	35.95	36.06	37.69	38.5	38.7	40.2	93.5	93.5	94.0
Boots and shoes	35.65	36.18	35.17	36.8	37.9	36.9	96.0	95.5	94.5
Leather gloves and mittens	33.55	33.68	32.33	37.0	37.0	36.7	91.9	91.9	88.3
Trunks and suitcases	40.85	39.56	38.96	40.0	39.3	39.5	102.0	100.2	98.3

See footnotes at end of table.

Earnings and hours in manufacturing and nonmanufacturing industries—Continued

MANUFACTURING—Continued

Industry group and industry	Average weekly earnings [1]			Average weekly hours [1]			Average hourly earnings [1]		
	Oct. 1946	Sept. 1946	Aug. 1946	Oct. 1946	Sept. 1946	Aug. 1946	Oct. 1946	Sept. 1946	Aug. 1946
Nondurable goods—Continued									
							Cents	*Cents*	*Cents*
Food	$43.88	$43.60	$44.34	42.4	43.0	43.7	103.5	101.4	101.5
Slaughtering and meat packing	43.06	41.11	48.37	37.5	35.9	43.4	114.7	114.4	111.6
Butter	41.40	41.38	40.67	46.2	46.7	46.4	89.4	88.2	87.5
Condensed and evaporated milk	43.32	43.95	43.55	46.8	47.6	48.0	92.5	92.4	90.8
Ice cream	47.69	46.48	45.71	47.6	46.8	47.6	96.7	95.6	93.5
Flour	52.01	52.21	50.37	48.5	49.1	49.3	107.4	106.4	102.4
Cereal preparations	48.28	47.15	46.27	42.0	42.4	42.7	114.9	111.2	108.3
Baking	45.45	44.60	44.63	43.6	44.5	45.0	104.2	100.3	99.4
Sugar refining, cane	38.38	38.35	39.27	37.7	37.9	39.1	101.7	101.2	100.4
Sugar, beet	40.12	48.87	40.76	40.3	42.8	38.3	99.2	114.1	106.5
Confectionery	35.04	36.14	35.13	39.5	40.0	39.7	87.4	87.3	86.6
Beverages, nonalcoholic	39.30	39.87	40.45	42.4	43.9	44.2	91.8	90.4	91.1
Malt liquors	56.57	57.45	56.36	42.5	42.7	42.5	133.0	134.4	132.4
Canning and preserving	40.79	41.54	41.12	41.7	43.4	42.3	98.9	96.3	97.6
Tobacco manufactures	36.82	35.33	34.16	40.5	39.4	38.6	91.0	89.6	88.5
Cigarettes	41.72	39.25	37.93	42.0	40.3	38.9	99.3	97.4	97.5
Cigars	33.48	32.84	31.50	39.6	39.0	38.6	84.9	83.9	81.4
Tobacco (chewing and smoking) and snuff	32.66	31.87	31.28	38.7	38.0	37.4	84.4	83.9	83.7
Paper and allied products	45.54	44.53	44.26	43.4	42.9	43.4	104.9	103.7	102.0
Paper and pulp	49.05	47.57	47.56	44.5	43.8	44.4	110.2	108.6	107.0
Envelopes	42.15	41.93	41.61	42.6	42.6	42.7	98.3	97.7	97.5
Paper bags	38.52	37.89	37.17	40.8	40.9	40.9	94.6	93.1	91.1
Paper boxes	42.02	41.34	41.21	42.5	42.1	42.6	99.0	98.3	96.8
Printing, publishing, and allied industries	54.34	54.09	53.01	41.0	41.1	40.8	132.6	131.6	129.9
Newspapers and periodicals	60.28	60.10	58.09	39.3	39.4	38.7	151.4	149.7	147.5
Printing, book and job	51.50	51.71	50.83	41.7	42.1	41.8	123.8	123.4	122.0
Lithographing	55.08	53.99	53.97	43.4	42.9	43.3	127.0	125.8	124.6
Chemicals and allied products	45.47	45.38	44.91	41.2	40.9	40.8	110.2	111.0	110.2
Paints, varnishes, and colors	47.07	46.52	47.41	41.6	41.4	42.6	113.4	112.4	111.4
Drugs, medicines, and insecticides	39.91	39.05	38.91	40.2	39.5	39.8	99.0	98.7	97.9
Soap	47.85	47.30	47.22	41.0	40.5	40.7	116.6	116.7	115.9
Rayon and allied products	42.98	43.55	42.62	39.2	39.3	39.1	109.7	110.7	108.9
Chemicals, not elsewhere classified	52.87	52.61	51.81	41.4	41.1	41.1	127.8	128.1	126.0
Explosives and safety fuses	50.26	50.98	48.37	40.7	41.3	39.1	123.4	123.3	123.7
Ammunition, small-arms	45.80	44.05	39.53	40.4	39.1	38.7	113.3	112.7	102.3
Cottonseed oil	32.65	31.23	30.84	50.9	49.4	46.9	64.4	63.4	65.7
Fertilizers	33.94	35.62	35.09	41.1	42.3	42.1	82.6	84.2	83.4
Products of petroleum and coal	54.47	55.25	54.36	40.2	40.4	40.3	135.4	136.8	134.7
Petroleum refining	57.39	58.35	57.10	40.0	40.2	40.0	143.8	145.3	142.7
Coke and byproducts	46.00	47.07	46.77	39.2	39.4	39.6	117.4	119.1	117.6
Roofing materials	49.46	48.82	49.61	44.2	43.6	44.5	112.0	112.0	111.4
Rubber products	51.33	53.62	51.03	39.3	40.6	39.4	130.5	132.0	129.5
Rubber tires and inner tubes	57.19	59.91	55.42	38.1	39.7	37.4	149.0	150.5	147.4
Rubber boots and shoes	38.93	45.27	44.45	37.3	41.5	41.2	104.3	109.1	107.8
Rubber goods, other	46.74	47.01	46.85	41.6	41.8	41.8	112.3	112.5	112.0
Miscellaneous industries	44.93	44.24	43.40	41.4	41.1	41.0	108.6	107.5	105.7
Instruments (professional and scientific), and fire control equipment	51.23	50.43	49.74	40.4	40.3	40.2	124.6	124.3	123.3
Pianos, organs, and parts	48.31	47.73	46.11	42.0	42.2	41.3	115.1	113.4	112.1

NONMANUFACTURING

							Cents	*Cents*	*Cents*
Mining:									
Anthracite	$61.82	$60.67	$60.65	39.2	37.7	37.9	159.3	161.1	159.8
Bituminous coal	62.54	61.65	62.84	42.9	41.8	42.8	145.9	148.0	146.6
Metal	49.58	49.53	49.59	41.0	40.6	40.9	120.8	122.1	121.2
Iron	48.00	48.45	48.03	40.4	39.8	40.2	118.7	121.9	119.4
Copper	51.66	51.09	52.13	42.3	41.9	42.4	122.0	122.1	123.1
Lead and zinc	49.23	49.47	48.70	40.2	40.3	39.9	122.4	122.7	121.9
Quarrying and nonmetallic	48.47	47.97	47.11	46.2	46.2	46.5	104.6	104.2	101.6
Crude petroleum production	55.39	53.19	53.42	41.2	40.5	40.9	130.7	131.3	130.7

See footnotes at end of table.

Earnings and hours in manufacturing and nonmanufacturing industries—Continued

NONMANUFACTURING—Continued

Industry group and industry	Average weekly earnings [1]			Average weekly hours [1]			Average hourly earnings [1]		
	Oct. 1946	Sept. 1946	Aug. 1946	Oct. 1946	Sept. 1946	Aug. 1946	Oct. 1946	Sept. 1946	Aug. 1946
Public utilities:							*Cents*	*Cents*	*Cents*
Telephone	$44.30	$44.10	$44.19	39.1	38.5	39.3	113.7	114.8	112.9
Telegraph [2]	40.89	40.98	41.31	44.4	44.8	45.4	92.1	91.4	91.0
Electric light and power	53.18	52.78	52.27	41.9	41.0	41.6	128.4	129.1	126.0
Street railways and busses	55.62	54.50	55.35	47.6	47.5	48.6	113.2	111.0	109.9
Trade:									
Wholesale	49.44	49.54	48.14	41.9	41.8	41.7	117.2	117.9	114.8
Retail	33.19	33.76	33.81	40.0	40.9	41.3	90.8	90.6	89.3
Food	40.16	40.08	40.38	41.0	41.1	42.7	94.4	93.7	92.4
General merchandise	27.65	28.57	28.63	35.5	36.7	37.6	76.0	75.6	74.7
Apparel	34.98	35.26	34.93	36.5	37.2	37.5	96.0	95.6	92.5
Furniture and housefurnishings	45.84	46.59	44.52	43.3	43.9	43.5	107.4	108.0	104.5
Automotive	48.82	49.15	47.97	46.1	46.4	46.3	107.9	107.5	105.9
Lumber and building materials	43.70	43.60	42.93	43.1	43.1	43.0	103.3	102.7	101.2
Hotels (year-round) [3]	27.17	26.98	27.15	44.1	43.5	43.8	61.9	62.0	61.4
Power laundries	30.52	30.45	29.97	43.0	42.9	43.0	70.8	70.8	69.3
Cleaning and dyeing	35.81	35.81	35.01	42.2	42.9	42.6	85.4	83.9	83.2
Brokerage	62.24	63.50	62.61	[4]	[4]	[4]	[4]	[4]	[4]
Insurance	51.20	50.63	49.87	[4]	[4]	[4]	[4]	[4]	[4]

[1] These figures are based on reports from cooperating establishments covering both full- and part-time employees who worked or received pay during any part of one pay period ending nearest the 15th of October 1946, as follows:

Manufacturing.—32,400 establishments, 7,235,000 production workers.
Mining.—2,600 establishments, 311,000 production workers.
Public utilities.—6,600 establishments, 688,000 employees.
Wholesale trade.—9,200 establishments, 249,000 employees.
Retail trade.—28,900, establishments, 752,000 employees.
Hotels (year-round).—900 establishments, 84,000 employees.
Power laundries and cleaning and dyeing.—1,400 establishments, 64,000 production workers.
Brokerage and insurance.—3,500 establishments, 154,000 employees.

As not all reporting firms furnish man-hour data, average hours and average hourly earnings for individual industries are based on a slightly smaller sample than are weekly earnings. For manufacturing, mining, power laundries, and cleaning and dyeing industries, the data relate to production workers only. For the remaining industries the data relate to all employees except high paid executives and officials. Data for the current and immediately preceding months are subject to revision.

[2] Excludes messengers, and approximately 6,000 employees of general and divisional headquarters, and of cable companies.

[3] Cash payments only; additional value of board, room, and tips, not included.

[4] Not available.

Trend of Factory Earnings, 1939 to October 1946

THE average earnings of factory workers are summarized in the accompanying table for selected months from January 1939 to October 1946.[1] The earnings shown in this table are on a gross basis (i. e., before deductions for social security, income taxes, bond purchases, etc.).

Weekly earnings in all manufacturing averaged $45.68 in October 1946—97.0 percent above the average in January 1939, 71.5 percent above January 1941, and 17.5 percent above October 1942. Weekly earnings for October 1946 increased 11.5 percent above October 1945. However, average weekly earnings were still below the wartime peak of $47.50 (in January 1945), as a result of shorter working hours

[1] Compare trends in factory wages, 1939–43, in Monthly Labor Review, November 1943 (p. 869), especially table 4 (p. 879). For detailed data regarding weekly earnings, see preceding table.

and shifts of workers from the high-paid war industries to the lower-paid consumer-goods industries.

Gross hourly earnings in all manufacturing averaged 113.0 cents in October 1946—78.8 percent above the average in January 1939, 65.4 percent above January 1941, and 26.5 percent above October 1942.

Straight-time average hourly earnings, as shown in columns 7 to 9, are weighted by man-hours of employment in the major divisions of manufacturing for January 1941. These earnings are estimated to exclude premium pay at time and a half for work in excess of 40 hours. However, the effect of extra pay for work on supplementary shifts and on holidays is included. For all manufacturing, the straight-time average in October 1946 was 109.5 cents per hour; this was 70.8 percent higher than in January 1939, 64.9 percent above January 1941, and 35.7 percent above October 1942.

Earnings of factory workers in selected months, 1939 to October 1946

Month and year	Average weekly earnings			Average hourly earnings			Estimated straight-time average hourly earnings[1] weighted by January 1941 employment		
	All manufacturing	Durable goods	Nondurable goods	All manufacturing	Durable goods	Nondurable goods	All manufacturing	Durable goods	Nondurable goods
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1939: January	$23.19	$25.33	$21.57	$0.632	$0.696	$0.583	$0.641	$0.702	$0.575
1940: January	24.56	27.39	22.01	.655	.717	.598	.652	.708	.589
1941: January	26.64	30.48	22.75	.683	.749	.610	.664	.722	.601
1942: January	33.40	38.98	26.97	.801	.890	.688	.751	.826	.668
July	36.43	42.51	28.94	.856	.949	.725	.783	.863	.696
October	38.89	45.31	30.66	.893	.990	.751	.807	.888	.718
1943: January	40.62	46.68	32.10	.919	1.017	.768	.819	.905	.726
April	42.48	48.67	33.58	.944	1.040	.790	.833	.916	.742
July	42.76	48.76	34.01	.963	1.060	.806	.850	.939	.753
October	44.86	51.26	35.18	.988	1.086	.824	.863	.950	.768
December	44.58	50.50	35.61	.995	1.093	.832	.873	.962	.775
1944: January	45.29	51.21	36.03	1.002	1.099	.838	.877	.965	.780
April	45.55	51.67	36.16	1.013	1.110	.850	.889	.976	.795
July	45.43	51.07	37.05	1.018	1.116	.862	.901	.993	.802
October	46.94	53.18	37.97	1.031	1.129	.878	.908	.991	.817
December	47.44	53.68	38.39	1.040	1.140	.883	.912	.997	.820
1945: January	47.50	53.54	38.66	1.046	1.144	.891	.920	1.005	.827
April	47.12	52.90	38.80	1.044	1.138	.899	.925	1.007	.836
July	45.12	50.60	38.59	1.032	1.126	.902	.933	1.017	.842
October	40.97	44.23	37.76	.985	1.063	.909	.942	1.014	.863
December	41.21	44.08	38.52	.994	1.066	.927	.957	1.028	.880
1946: January	41.15	43.67	38.75	1.004	1.070	.941	.970	1.037	.895
April	42.88	45.71	40.13	1.058	1.131	.988	1.027	1.102	.946
July	43.38	46.24	40.46	1.093	1.177	1.009	1.067	1.155	.970
August	44.99	48.02	41.89	1.112	1.186	1.036	1.079	1.156	.995
September[2]	45.41	48.40	42.34	1.127	1.201	1.050	1.093	1.171	1.008
October[2]	45.68	48.83	42.42	1.130	1.202	1.055	1.095	1.169	1.013

[1] The method of estimating straight-time average hourly earnings makes no allowance for special rates of pay for work done on major holidays. Estimates for the months of January, July, September, and November, therefore, may not be precisely comparable with those for the other months, in which important holidays are seldom included in the pay periods for which manufacturing establishments report to the Bureau. This characteristic of the data does not appear to invalidate the comparability of the figures for January 1941 with those for the preceding and following months.

[2] Preliminary.

Recent Publications of Labor Interest

January 1947

Cooperative Movement

Labor and the cooperatives: What's wrong? By Albert Rees. (*In* Antioch Review, Vol. 6, No. 3, Yellow Springs, Ohio, fall 1946, pp. 327–340; also reprinted.)

Defining the "labor co-op" as one the sociological base of which is the labor union, the author reviews the cooperatives of which this is true and concludes that "labor co-ops are weakest exactly where labor is strongest—in the larger cities." The remainder of the article contains a thoughtful analysis of why this is so, and presents suggestions for remedying the situation.

The war on malnutrition and poverty: The role of consumer cooperatives. By J. Murray Luck. New York, Harper & Bros., 1946. 203 pp., bibliography, charts. $2.50.

In the opinion of the author, the role of consumers' cooperatives, in the prevention of malnutrition, is that of prevention of the poverty which results in inability to provide subsistence. With this approach, he gives a brief history of the cooperative movement since its early beginnings, describes a number of cooperative associations which illustrate his thesis, and shows how credit unions also tend to raise the income level and economic well-being. One chapter is devoted to the cooperative movement in Nova Scotia.

1945 annual report of operations, Federal credit unions. Washington, Federal Deposit Insurance Corporation, 1946. 22 pp., charts; processed.

Detailed statistics of operations of credit unions chartered under the Federal Credit Union Act.

Credit unions in Canada, 1945. By J. E. O'Meara. Ottawa, Department of Agriculture, Economics Division, Marketing Service, 1946. 9 pp., map; processed.

The cooperative movement in the colonies. Despatches dated March 20, 1946, and April 23, 1946, from the Secretary of State for the Colonies to colonial governments. London, Colonial Office, 1946. 36 pp. (Colonial No. 199.) 1s. net.

Discusses the advantages of various types of cooperatives in helping to solve the economic problems of colonial peoples, and recommends that colonial authorities take steps to assist in the formation and supervision of such associations where they do not now exist. Contains drafts of a model law for cooperatives and of regulations.

Cost and Standards of Living

Husholdningsregnskaber i aaret, April 1, 1939–March 29, 1940 og i 4 ugers perioden, April 11–May 8, 1942. Copenhagen, Statistiske Departement, 1944. 292 pp. (Statistiske meddelelser, 4. række, 122. bind, 1. hæfte.) Kr. 1.50. Supplementshefte, 1944, 322 pp.

Study of family incomes and expenditures in Denmark. In Danish with French translations of table of contents, foreword, and table heads.

EDITOR'S NOTE.—Correspondence regarding the publications to which reference is made in this list should be addressed to the respective publishing agencies mentioned. Where data on prices were readily available, they have been shown with the title entries.

Living and office-operating costs in Mexico. By Katherine E. Rice. Washington, U. S. Department of Commerce, Bureau of Foreign and Domestic Commerce, 1946. 10 pp. (International Reference Service, Vol. 3, No. 47.) 5 cents, Superintendent of Documents, Washington.

Intended for United States firms' representatives who are planning to travel or reside in Mexico, the price data are for goods and services customarily desired by such persons.

Other Latin-American countries covered by similar reports of the Bureau of Foreign and Domestic Commerce in 1946 include Brazil, Chile, Guatemala, Panama, El Salvador, and Venezuela.

Enquiry into the cost of living and the control of the cost of living in the Colony and Protectorate of Nigeria. London, Colonial Office, 1946. 225 pp., pasters. (Colonial No. 204.) 3s. 6d. net, H. M. Stationery Office, London.

Economic and Social Problems

For this we fought: Guide lines to America's future as reported to the Twentieth Century Fund. By Stuart Chase. New York, Twentieth Century Fund, 1946. 123 pp. $1.

Deals with immediate and long-term problems. Sixth of a series of reports written for the Twentieth Century Fund by the same author "to give the general reader a dynamic understanding of the great issues of postwar America."

Communism in America. By Buel W. Patch. Washington (1205 19th Street NW.), Editorial Research Reports, 1946. 20 pp. (Vol. II, 1946, No. 20.) $1.

Examines the background of and the basis for concern over communist infiltration in the United States, methods of the Communist Party, and communist infiltration in labor unions.

Measuring business cycles. By Arthur F. Burns and Wesley C. Mitchell. New York, National Bureau of Economic Research, Inc., 1946. 560 pp., charts. (Studies in business cycles, No. 2.) $5.

This volume, a highly technical analysis of cyclical behavior, is an outgrowth of work which was outlined in "Business cycles, the problem and its setting," published in 1927 by the National Bureau of Economic Research. The data analyzed relate to Great Britain, France, and Germany as well as the United States.

Chances de l'économie française. By Alfred Sauvy. Paris, Presses Universitaires de France, 1946. 254 pp.

Consideration of various possibilities for rebuilding the French economy, stressing three systems from which choice might be made—free competition, collectivism, or a combination of collectivism and private property. Includes chapters on full employment and unemployment, food supply, prices, national planning, social security, and nationalization of industry.

Employment

Employment statistics in the planning of a full-employment program. By Charles Stewart and Loring Wood. (*In* Journal of the American Statistical Association, Menasha, Wis., September 1946, pp. 313–321.)

Employment and pay rolls in Washington State, by area and by industry, 1945—industries covered by the Unemployment Compensation Act. Olympia, Office of Unemployment Compensation and Placement, 1946. 21 pp.; processed.

Guaranteed Wage

Annual wage and employment guarantee plans. By F. Beatrice Brower. New York, National Industrial Conference Board, Inc., 1946. 53 pp. (Studies in personnel policy, No. 76.)

Report of a survey by the National Industrial Conference Board of 125 guaranteed wage or employment plans. The study analyzes the various types of current and discontinued plans, and includes a tabular digest of leading features of guaranty provisions incorporated in union agremeents.

Will the guaranteed annual wage work? New York, National Industrial Conference Board, Inc., 1946. 44 pp., bibliography. (Studies in business economics, No. 5.)

Round-table discussion in which 15 economists appraise the "consequences, implications, and repercussions" of the guaranteed annual wage.

Handicapped Workers

Aid to physically handicapped. Report from Subcommittee on Aid to Physically Handicapped, Committee on Labor, House of Representatives, 79th Congress, 2d session, pursuant to H. Res. 45 * * *. Washington, U. S. Government Printing Office, 1946. 20 pp.

Findings and recommendations of the subcommittee, after 2 years of work (including extensive hearings). Aid now given by Federal, State, and local governments, and by private agencies, to the physically handicapped was held to be inadequate, haphazard, and unevenly diffused in extent and character, and Federal responsibility piecemeal and fractional. The first step in remedying the situation, the report suggests, would be to centralize, in a single department, the administration of Government programs for the physically handicapped.

Vocational rehabilitation for civilians—a public service to restore the disabled to paid jobs through medical service, counsel and guidance, training, job finding. Washington, Federal Security Agency, Office of Vocational Rehabilitation, [1946?]. 21 pp. Free.

Health and Industrial Hygiene

Longevity at record high in industrial population. (*In* Statistical Bulletin, Metropolitan Life Insurance Co., New York, August 1946, pp. 1–3.)

Expectation of life (at birth) reached an all-time high of almost 65 years among the industrial policyholders of the Metropolitan Life Insurance Co. in 1945, representing an increase of a half year over 1944 and 1½ years over 1941, the last prewar year.

Sickness absenteeism among male and female industrial workers during 1945 * * *. By W. M. Gafafer. (*In* Public Health Reports, Federal Security Agency, Public Health Service, Washington, November 8, 1946, pp. 1620–1630, bibliography, charts. 10 cents, Superintendent of Documents, Washington.)

In industries studied by the U. S. Public Health Service, the male absence rate for sickness and nonindustrial injuries resulting in disablement for 8 days or longer in 1945 was 147 per thousand men, or 35 percent above the 10-year mean, 1936–45, and 5 percent above the 1944 average. For females, the rate was 258 per thousand women, or 48 percent above the 10-year mean and 17 percent above the 1944 rate. Absences due to illnesses falling in several broad cause groups are also analyzed.

Industrial ophthalmology as of 1946. By Hedwig S. Kuhn, M.D. (*In* Journal of the American Medical Association, Chicago, November 30, 1946, pp. 772–777, charts. 25 cents.)

Outlines authoritative technical and procedural aids for eye services in industry.

Radium dial painting—medical status of workers. By Irving R. Tabershaw, M.D. (*In* Journal of Industrial Hygiene and Toxicology, Baltimore, September 1946, pp. 212–216, bibliography. $1.25.)

Recommendations for continued careful attention to the control of radium hazards, and for health education of the workers, follow from this recent study of 52 radium-dial painters employed a minimum of 18 months.

Tuberculosis control in industry, results from 1941 to 1945. By Charles R. Allison, M.D. (*In* Occupational Medicine, Chicago, September 1946, pp. 207–213, charts. 75 cents.)

A total of 26,500 employees of the Eastman Kodak Co. were given repeated roentgenograms of the chest during the 5-year period 1941–45. Only 18 had developed active pulmonary tuberculosis, and of these, 11 had returned to work, at the end of the observation period.

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Housing

Annual report of Federal savings and loan associations, for the year ended December 31, 1945. Washington, Federal Home Loan Bank Administration, [1946]. 84 pp., charts; processed.

Statistics of operation, by States and by individual associations. The report also gives combined tables showing the condition of the savings (formerly building) and loan associations throughout the United States.

Principles of planning small houses. Washington, U. S. National Housing Agency, Federal Housing Administration, 1946. 44 pp., plans, illus. (Technical bull. No. 4.)

Prepared to stimulate and encourage the designing of homes at reduced cost without sacrificing comfort or sound construction.

Reading list on housing. Washington, U. S. National Housing Agency, Information Service, [August 1946]. 15 pp.; processed. Free.

Housing in Canada—a factual summary, October 1946. Ottawa, General Mortgage and Housing Corporation, Economic Research Division, 1946. 58 pp., bibliography, charts. 25 cents.

First issue of a new publication (to be issued quarterly beginning in 1947) designed to furnish as complete a picture as possible of the housing situation in Canada. Insofar as available, this number presents information by year, 1919–45, and by month, 1945 and 1946. It covers not only volume of production but related subjects such as production and wholesale prices (indexes) of building materials, employment and wages (indexes), and training of workers in construction trades.

Manpower and material requirements for a housing program in Canada. Ottawa, Department of Reconstruction and Supply, 1946. 137 pp., map, charts. 50 cents.

Industrial Accidents and Workmen's Compensation

Air-line answers. By James M. Brown and Raymond T. Bartnett. (*In* Safety Engineering, New York, October 1946, pp. 60, 62, et seq., illus. 25 cents.)

Describes unusual adaptations of air-line respirators and masks to the hazards connected with production of fissionable materials.

Annual statistical number, Accident Prevention Magazine, Portland Cement Association. Chicago, August 1946. 15 pp., charts.

Detailed report on accident experience of the cement industry (including quarries, mines, and clay fields) in 1945, with summary data for the 5-year period from 1941 to 1945.

It's all in the training. (*In* Safety Bulletin, Federal Security Agency, Bureau of Employees' Compensation, Washington, September 1946, pp. 6–8, illus.)

Outline of the program for teaching safety in the operation of the fork-lift truck in naval establishments.

Use cold chisels safely. Washington, U. S. Department of Labor, Division of Labor Standards, 1946. (Industrial safety charts, series U). 5 cents, Superintendent of Documents, Washington.

Compensated cases closed in 1945 [by New York State Workmen's Compensation Board]. New York, Workmen's Compensation Board, 1946. 51 pp., charts. (Research and statistics bull. No. 1.)

Contains a wide variety of statistical information on the more than 100,000 industrial-accident and occupational-disease cases closed in 1945 with awards of compensation to claimants. Deaths resulting from industrial injury declined, but permanent partial disabilities increased to 30 percent of the total cases closed. Women accounted for nearly one-fifth of all claimants. Accidents were highest among the semiskilled. Legal services were retained in 8 percent of the cases.

Workmen's compensation and the protection of seamen. Washington, U. S. Bureau of Labor Statistics, 1946. 93 pp. (Bull. No. 869.) 20 cents, Superintendent of Documents, Washington.

Industrial Relations

A bibliography on union-management cooperation. Washington, U. S. Bureau of Labor Statistics, 1946. 7 pp.; mimeographed. Free.

A guide to the National Labor Relations Act. By Louis G. Silverberg. Washington, U. S. Department of Labor, Division of Labor Standards, 1946. 58 pp., charts. (Bull. No. 81.) 15 cents, Superintendent of Documents, Washington.

Simple description of procedures and practices under the Act.

How to handle problems of seniority. By John A. Lapp. Deep River, Conn., etc., National Foremen's Institute, 1946. 295 pp. $4.

Intended as a guide for those responsible for creating and administering seniority systems, the book analyzes various applications of seniority rules, and gives examples of seniority provisions in collctive-bargaining agreements. One chapter deals with veterans' seniority rights under the Selective Service Act.

Labor-management disputes, subsequent to August 17, 1945, involving possession of properties by the Federal Government. By Arthur E. Suffern. Washington, U. S. National Wage Stabilization Board, 1946. 98 pp.; mimeographed. (Research and statistics report No. 2.) Free.

Trend and types of collective bargaining. By Boris Stern. (*In* Mill and Factory, New York, October 1946, pp. 130–132.)

Provisions of collective-bargaining agreements on the closed shop, the union shop, maintenance of union membership, and the check-off are described.

Industry Reports

Household employment—a digest of current information. Washington, U. S. Women's Bureau, September 1946. 75 pp.; mimeographed. Free.

Includes a summary of legislation affecting domestic workers as of September 15, 1946, and information on wages, standards, and training.

Domestic service employment in New York State. New York, State Department of Labor, Division of Industrial Relations, Women in Industry, and Minimum Wage, 1946. 40 pp., bibliography; processed.

Examines problems of household employment and summarizes various proposals for their solution. Data on wages and working conditions of household workers in New York State are presented.

Labor and transportation: Program and objectives of transportation labor in the postwar period. Washington, Railway Labor Executives' Association, 1946. 52 pp., chart. Free.

The report states that this is the first over-all study of the problem of transportation from labor's viewpoint. It offers a general program for all transportation labor followed by a specific program for railroad labor. Emphasis is placed on a general transportation labor program aimed at safeguarding and promoting the welfare of the employees to the end that no branch of transportation, by virtue of the exploitation of its particular employees, be enabled in any way to compete unfairly with the other branches of transportation.

Labor and Social Legislation

The proposed fair employment practice act; facts and fallacies. By A. Bruce Hunt (*In* Virginia Law Review, Charlottesville, December 1945, pp. 1–38; also reprinted.)

Two bills introduced in the 79th U. S. Congress are analyzed and an attempt made to clarify some of the issues and objections.

Revision of the Wagner Act. By L. B. Wheildon. Washington (1205 19th Street NW.), Editorial Research Reports, 1946. 18 pp. (Vol. II, 1946, No. 15.) $1.

Reviews factors leading up to the demand for revision of the National Labor Relations Act, and current proposals for modifying it, including efforts to impose legal obligations on trade-unions, equalization of labor-management rights, and procedural reforms.

Experience and experiment in labor legislation: Puerto Rico Labor Relations Act. (*In* Harvard Law Review, Cambridge, Mass., July 1946, pp. 976–983. 75 cents.)

Analyzes the Puerto Rico Labor Relations Act and points out differences between its provisions and those of the National Labor Relations Act. Departures deemed of particular significance are those respecting board control of union-membership discrimination and violations of collective-bargaining agreements.

Recopilación de las leyes del trabajo, [Dominican Republic]. By Aristides Sanabia. [Ciudad Trujillo], Roques, 1946. 265 pp.

Labor laws enacted to February 1946.

Recopilación legislativa, [Spain], anuario correspondiente al año 1945. Madrid, Ministerio del Trabajo, 1946. 709 pp.

Legislation concerning labor and social welfare.

Labor Organizations and Their Activities

The locus of union control in collective bargaining. By Joseph Shister. (*In* Quarterly Journal of Economics, Cambridge, Mass., August 1946, pp. 513–545. $1.25.)

In dealing with the control of labor-market conditions by "collective bargaining around the conference table," the author emphasizes the role of national, as distinguished from local, bargaining units, and the growth in recent years of cooperation among unions dealing with the same employer. The article is part of a more comprehensive study of trade-union government and policies.

Report of President Philip Murray to the eighth constitutional convention of the Congress of Industrial Organizations, Atlantic City, N. J., November 18–25, 1946. [Washington, Congress of Industrial Organizations], 1946. 79 pp.

Discusses general economic and labor conditions in the United States and reviews activities of the Congress of Industrial Organizations.

Spotlight on labor unions. By William J. Smith. New York, Duell, Sloan and Pearce, 1946. 150 pp. $2.50.

Critical analysis of the activities of labor unions in the United States and a defense of the unions from several specific criticisms frequently heard. Presents a "code for industrial relations" based on cooperation between labor and management.

State regulation of labor union practices and affairs. (*In* N. A. M. Law Digest, National Association of Manufacturers, Law Department, Washington, December 1946, pp. 17–48, bibliography.)

Examination of the constitutional power of States to regulate strikes, picketing, boycotts, collective-bargaining contracts, closed shop, and other affairs of labor unions.

Arbetarrörelsen i Sverige. By Sigfrid Hansson; revised by Olof Landqvist. Stockholm, Tidens Förlag, 1946. 167 pp., charts. 6th ed.

Revision of a work on the Swedish labor movement, first published in 1935.

Medical Care

A suggested plan for a preventive medical program in a Federal employees' health service. By U. S. Public Health Service. (*In* Public Health Reports, Federal Security Agency, U. S. Public Health Service, Washington, November 15, 1946, pp. 1642–1654. 10 cents, Superintendent of Documents, Washington.)

A suggested plan to implement the most recent provision (Public law 658, 79th Cong., 2d sess., approved August 8, 1946) for Federal employees' health programs. Such programs may be established by heads of departments and agencies (including Government owned and controlled corporations), after consulting the Public Health Service and considering its recommendations. Services are to be limited to (1) treatment of on-the-job illness and dental conditions requiring emergency attention; (2) preemployment and other examinations; (3) referral of employees to private physicians and dentists; and (4) preventive programs.

The plan presented interprets the act and submits standards and recommendations. The proposals include health examinations to be related to job adjustment, sickness absenteeism, retirement, and other employment factors.

Public medical care. By F. M. Brewer. Washington (1205 19th Street NW.), Editorial Research Reports, 1946. 18 pp. (Vol. II, 1946, No. 10.) $1.

Brief summary of action on health measures by the 79th Congress, and of medical care in the United States as exemplified by public health services and voluntary insurance plans, together with a résumé of the new British health program and of State medicine in the Soviet Union.

Final report of the Assembly Health Care Investigating Interim Committee, [California Legislature], House resolution No. 295, [regular session, 1945]. [Sacramento], State Printing Office, 1946. 152 pp., bibliography.

Basic data underlying proposals for a State-operated plan of prepaid medical care. Incidence of illness, adequacy of medical and hospital facilities, and costs were prime considerations. An actuarial report and a public opinion survey contribute to the statistical material. Projects under way in the State which will yield additional material are noted.

Cash sickness funds in Rhode Island and California. (*In* Social Security Bulletin, Federal Security Agency, Social Security Administration, Washington, October 1946, pp. 43–46. 15 cents, Superintendent of Documents, Washington.)

Both funds derive their revenues mainly from employee pay-roll deductions, formerly paid into the respective State unemployment-insurance funds, and are entirely under State control. Principal financial provisions of the laws governing the two sickness funds are compared.

Trends in dentist-population ratios. By J. W. Mountin, E. H. Pennell, G. S. Brockett. (*In* Public Health Reports, Federal Security Agency, U. S. Public Health Service, Washington, November 22, 1946, pp. 1689–1701, bibliography, charts. 10 cents, Superintendent of Documents, Washington.)

In 1940 there were 53.6 dentists per 100,000 population, as against 57.9 in 1930, and they were poorly distributed, being concentrated in areas of high per capita income and in large urban communities. Other significant trends are noted.

Occupations and Occupational Adjustment

Aids in counseling. Washington, U. S. Department of Labor, 1946. 6 pp. Free.

List of publications prepared by different branches of the U. S. Department of Labor, selected for their usefulness in counseling, particularly with respect to employment and occupations.

Establishing and operating a retail feed and farm supply store. By Victor E. Hood.
Establishing and operating a confectionery-tobacco store. By George F. Dudik.
Establishing and operating a trucking business. By James C. Nelson and Knute E. Carlson.
Establishing and operating an automatic merchandising business. By Clara C. Linderholm.

Washington, U. S. Department of Commerce, Bureau of Foreign and Domestic Commerce, 1946. 38, 53, 71, 41 pp., respectively, illus. (Industrial (small business) series, Nos. 45, 48, 52, 58.) 15, 15, 20, 15 cents, Superintendent of Documents, Washington.

The job-hunter's handbook. By Martin W. Schaul. New York, Prentice-Hall, Inc., 1946. 58 pp. $1 (75 cents, paper cover).

Tells how to go about finding, in a city, a job suited to the job-hunter's qualifications.

Pensions

Assistance payments under State-Federal programs, 1945. Washington, Federal Security Agency, Social Security Administration, Bureau of Public Assistance, 1946. 21 pp.; processed.

Covers old-age assistance and aid to the blind and to dependent children.

Retirement systems for Federal employees—a selected list of references. Washington, U. S. Civil Service Commission, Library, 1946. 20 pp.; processed.

Annual report of the Comptroller of the City of New York, for the fiscal year 1945–46. New York, 1946. 443 pp.

Balance sheets and statements of operation of the various retirement systems of which the Comptroller is custodian are contained in an appendix. These are the New York City employees' retirement system; teachers' retirement system; Board of Education retirement system; Police Department pension fund; and Fire Department pension fund.

Forty-first annual report of Carnegie Foundation for the Advancement of Teaching' 1945–46. New York, 1946. 160 pp.

Includes data on grants by the Foundation for university and college retirement allowances and widows' pensions.

Old age and blind pensioners in Canada—financial and statistical summary as at June 30, 1946. (*In* Labor Gazette, Department of Labor, Ottawa, September 1946, pp. 1328–1330.)

A total of 7,061 blind persons and 199,967 aged persons were receiving pensions in Canada on June 30, 1946. Monthly pensions in the different Provinces ranged from $22.75 to $25 for the blind and from $19.09 to $24.53 for the aged.

Personnel and Industrial Management

The foreman's place in management. By Charles Copeland Smith. New York, Harper & Bros., 1946. 159 pp. $2.

Deals largely with legal and administrative problems in the organization of foremen. Urges management to give greater consideration to the value of foremen in the business organization.

Handbook of job evaluation for factory jobs. By Personnel Research Institute, Western Reserve University. Cleveland, American Institute of Bolt, Nut and Rivet Manufacturers, 1946. 80 pp., forms.

How to supervise people. By Alfred M. Cooper. New York, McGraw-Hill Book Co., Inc., 1946. 162 pp. 2d ed., rev. $2.

Psychology in industry: A psychological approach to industrial problems. By Norman R. F. Maier. Boston, etc., Houghton Mifflin Co., 1946. 463 pp., bibliography, diagrams. $3.

Australian meat works—some aspects of personnel practice and working conditions. Melbourne, Department of Labor and National Service, Industrial Welfare Division, 1946. 47 pp., illus. (Bull. No. 10.)

Postwar Reconstruction

Rehabilitation: Materials on today's problems for veterans and civilians. By Mary A. Sweeney. Chicago, American Library Association, 1946. 132 pp., bibliography. $1.25.

The presentation is divided into four parts: Rehabilitation; Readjustment; Training opportunities; and Placement for the individual.

Grants and allowances available to transferred workers [under the] resettlement scheme, [Great Britain]. London, Ministry of Labor and National Service, 1946. 8 pp.

Manpower, demobilization, and reabsorption report, Colony and Protectorate of Kenya, 1945. Nairobi, Government Printer, 1946. 60 pp. 2s.

Production and Productivity of Labor

Labor productivity. By L. B. Wheildon. Washington (1205 19th Street NW.), Editorial Research Reports, 1946. 14 pp. (Vol. II, 1946, No. 13.) $1.

Productivity changes since 1939. Washington, U. S. Bureau of Labor Statistics, 1946. 25 pp. (Serial No. R. 1854; preprinted from Monthly Labor Review, December 1946.) Free.

Productivity and unit labor cost in steam railroad transportation, 1935–45. Washington, U. S. Bureau of Labor Statistics, 1946. 4 pp.; mimeographed. Free.

Selected references on productivity. Washington, U. S. Bureau of Labor Statistics, October 1946. 49 pp.; mimeographed. Free.

Incentive for Soviet initiative. By Francis Hughes. (In Economic Journal, London, September 1946, pp. 415–425. 7s. 6d. net.)

Description of the Soviet Government's system of granting rewards to inventors and other persons making useful suggestions for improvements in production.

Veterans' Affairs

Veterans' bonus. By Kendrick Lee. Washington (1205 19th Street NW.), Editorial Research Reports, 1946. 16 pp. (Vol. II, 1946, No. 19.) $1.

Review of the bonus issue after World War I and the suggested arrangements for veterans of World War II.

Order by His Majesty concerning retired pay, pensions, and other grants for members of the air forces and of the nursing and auxiliary services thereof disabled, and for the widows, children, parents, and other dependents of such members deceased, in consequence of service during the 1939 World War. London, Ministry of Pensions, 1946. 45 pp. 9d. net, H. M. Stationery Office, London.

Report of Rehabilitation Board, New Zealand, for year ended March 31, 1946. Wellington, 1946. 32 pp., chart. 1s., Government Printer, Wellington.

Describes activities of the Rehabilitation Department and other agencies of the New Zealand Government with respect to various phases of the readjustment of ex-service men and women, including retraining and housing.

Wages and Hours of Labor

Decontrol of wages. By L. B. Wheildon. Washington (1205 19th Street NW.), Editorial Research Reports, 1946. 17 pp. (Vol. II, 1946, No. 18.) $1.

A national wage policy for 1947. By Robert R. Nathan and Oscar Gass. Washington, Robert R. Nathan Associates, Inc., 1946. 71 pp., charts. Free.

A study of hourly and weekly earnings and corporate profits. The authors conclude that wage increases since the end of the war did not warrant extensive price increases. On the basis of their analysis of profits, they assert that a balanced economy at full production and employment requires extensive further wage increases to prevent a blocking of the flow of income into consumption and an ensuing depression.

Should wage rates be increased? Chicago, University of Chicago, 1946. 20 pp. (Round Table, No. 452.)

Broadcast in cooperation with the National Broadcasting Co., November 17, 1946.

The public works wage rate and some of its economic effects. By Viola Wyckoff. New York, Columbia University Press, 1946. 313 pp., bibliography, charts. (Columbia University studies in history, economics, and public law, No. 521.) $3.50.

After examining the various patterns of public-works wage rates paid since 1930, the author concludes that the appropriate hourly wage rate should depend upon the purpose of the public-works project. Effects of public-works wage rates on private wage rates are discussed both theoretically and empirically. Evidence is submitted to support a "very strong presumption that the public-works wage rates affect the private wage rate."

Municipal shift differential and overtime practices. Milwaukee, Wis., City Service Commission, Classification Division, October 1946. 8 pp.; processed. Free.

A survey of 18 representative cities of 300,000 or more population, in different sections of the United States.

Health and efficiency of workers as affected by long hours and night work—experience of World War II. New York, State Department of Labor, Division of Industrial Relations, Women in Industry, and Minimum Wage, 1946. 28 pp., bibliography; processed.

Profit, income, and living standards. Melbourne, Institute of Public Affairs—Victoria, 1946. 32 pp. (A "Looking forward" publication.)

On the basis of statistics of income distribution, wage trends, and social-service payments, presented in the pamphlet, the writers conclude that increased production under a profit motive is the best method of raising the standard of living.

Women in Industry

Careers for modern women. By Harold S. Kahm. New York, Knickerbocker Publishing Co., 1946. 128 pp. $1.

Characteristics of each of over 200 occupational fields, including individual businesses and spare-time money-making ideas, are described.

Bibliography on night work for women. Washington, U. S. Department of Labor, Women's Bureau, August 1946. 39 pp.; mimeographed. Free.

Long hours and night work—experiences and views of women workers, New York State. New York, State Department of Labor, Division of Industrial Relations, Women in Industry, and Minimum Wage, 1946. 19 pp.; processed.

Equal pay for women workers. Washington, U. S. Bureau of Labor Statistics, 1946. 10 pp. (Serial No. R. 1851; reprinted from Monthly Labor Review, September 1946.) Free.

Postwar changes in the employment of women in New York State, 1944–46. New York, State Department of Labor, Division of Industrial Relations, Women in Industry, and Minimum Wage, 1946. 41 pp., bibliography, charts; processed.

General Reports

Labor in the South. Washington, U. S. Bureau of Labor Statistics, 1946. 106 pp., charts. (Serial No. R. 1855; reprinted from Monthly Labor Review, October 1946.) Free.

Major subjects covered include labor supply, wages and other income, cost of living, labor legislation, trade-unionism, and cooperatives.

The Roosevelt I knew. By Frances Perkins. New York, Viking Press, 1946. 408 pp., illus. $3.75.

The former Secretary of Labor gives a picture of Roosevelt the man, the politician, the Governor of New York, and the President. The major part of the book deals with the Presidency, with emphasis on labor and social conditions and methods of dealing with them.

China: A selected list of references on contemporary economic and industrial development, with special emphasis on postwar reconstruction. Compiled by Helen F. Conover. Washington, U. S. Library of Congress, General Reference and Bibliography Division, August 1946. 118 pp.; mimeographed. Available (free) only to libraries.

References to material on labor subjects are included.

Les cadres de l'industrie française. By Pierre Alamigeon. Paris, Presses Universitaires de France, 1945. 130 pp., bibliography.

Descriptive, historical, and critical survey of place of technicians in French industry, covering qualities they should have, their selection and training, and their present situation as to wages, trade-unionism, etc. In addition to considerable detail on the large institutions for technical training of engineers, etc., the book gives some ten pages to occupational training of "ordinary" workers.

Great Britain: Labor's first year. (*In* Round Table, London, September 1946, pp. 366–372. 5s.)

Critical analysis of the Labor Party's record in Parliament, in foreign affairs, and in the economic field since July 1945, pointing out certain weaknesses and mistakes which are held to account for the drop in its majority in certain by-elections.

Annual report of Labor Department, Colony and Protectorate of Kenya, 1945. Nairobi, 1946. 27 pp., charts. 1s.

National economy of Mexico. Washington, Pan American Union, 1946. 70 pp., bibliography; mimeographed. (Commercial Pan America, May–June 1946.) 20 cents.

Includes figures on agricultural, manufacturing, mining, and other types of production, estimated net national income, indexes of cost of living and retail prices (Mexico City), and indexes of wholesale prices, in 1944 or 1945 and certain earlier years.

U. S. GOVERNMENT PRINTING OFFICE: 1946